

# PubMed

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**<http://pubmed.gov>**

## **PubMed® Overview**

- PubMed is a database developed by the National Center for Biotechnology Information (NCBI) at the National Library of Medicine (NLM) available on the Web. It is one of several databases under NCBI's Entrez retrieval system.
- PubMed provides access, free of charge, to MEDLINE®, a database of 12+ million bibliographic citations. In addition to MEDLINE citations, PubMed includes:
  - Citations of recently published articles not yet fully indexed for MEDLINE.
  - Some older citations that precede the date in which the journal was selected for indexing in MEDLINE.
  - Links to the full text of articles at participating publishers' Web sites, biological data, sequence centers, etc. from third parties, and from PubMed Central.
  - Links to the integrated molecular biology databases maintained by NCBI. These databases contain DNA and protein sequences, genome mapping data, and 3-D protein structures, aligned sequences from populations, and the Online Mendelian Inheritance in Man (OMIM).
  - OLDMEDLINE, approximately 2 million citations from biomedical journals covering the fields of medicine, preclinical sciences and allied health sciences from 1951 through 1965.

## Navigating Your Results

### Publisher Supplied Citations

- These are citations that are supplied electronically by publishers directly to PubMed. (Not all citations are supplied electronically).
  - They may be from journals not indexed for MEDLINE, or articles from issues of MEDLINE journals prior to their selection for indexing. They have not, and may never go through a quality review by NLM.
- Citations received electronically have the status tag: **[PubMed - as supplied by publisher]**.

#### Sample of a publisher-supplied citation -- submitted electronically:

*Notice the [PubMed – as supplied by publisher] status tag.*

[LiCalsi C, Maniaci MJ, Christensen T, Phillips E, Ward GH, Witham C.](#)  
A powder formulation of measles vaccine for aerosol delivery.  
Vaccine. 2001 Mar 21;19(17-19):2629-2636.  
PMID: 11257402 [PubMed - as supplied by publisher]

#### Articles from issues of MEDLINE journals prior to selection for indexing

- If publishers choose to supply NLM with electronic data from issues of journals prior to when the journal was selected for indexing, those citations will be entered into PubMed and carry the status tag **[PubMed – as supplied by publisher]**.

**Example:** NLM began indexing the journal, *Molecular Diagnosis* with v. 4, no. 1, 1999. However, the publisher supplied NLM with citations from earlier issues. These citations were added to PubMed but will not be indexed with MeSH headings.

*This citation from volume 2, 1997 has the [PubMed – as supplied by publisher] status tag.*

[Dhir R, Gau JT, Krill D, Bastacky S, Bahnson RR, Cooper DL, Becich MJ.](#)  
CD44 Expression in Benign and Neoplastic Human Prostates.  
Mol Diagn. 1997 Sep;2(3):197-204.  
PMID: 10462610 [PubMed - as supplied by publisher]

## In Process Citations

- These are electronically supplied citations that will be reviewed for accurate bibliographic data and indexed with NLM's MeSH<sup>®</sup> headings (controlled vocabulary terms).
- In process records carry the status tag: **[PubMed – in process]**.

### Sample of an In Process citation in PubMed:

Notice the [PubMed-in process] status tag.

[LiCalsi C, Maniaci MJ, Christensen T, Phillips E, Ward GH, Witham C.](#)  
A powder formulation of measles vaccine for aerosol delivery.  
Vaccine. 2001 Mar 21;19(17-19):2629-36.  
PMID: 11257402 [PubMed - in process]


## Other PubMed Citations

- Some of the citations received electronically from publishers never become MEDLINE citations. These records do not go through the indexing process – they are not assigned MeSH terms. This occurs when a particular article in a selectively indexed journal is out-of-scope for MEDLINE (such as a geology article in a general scientific journal like *Science* or *Nature*), **and** the publisher provides PubMed with electronic data for the entire journal.

These records carry the status tag **[PubMed]** and remain in PubMed even though they are not MEDLINE citations.

### Sample of a citation for an article that is out of scope for MEDLINE:

Notice the [PubMed] status tag.

☐ 79: [Schilling G.](#)  
 Astrophysics. Astronomers nail down origin of gamma ray bursts.  
Science. 2003 Jun 20;300(5627):1860. No abstract available.  
PMID: 12817115 [PubMed]



**[PubMed]** citations have been quality reviewed by NLM.

- Approximately 2 million OLDMEDLINE citations are part of PubMed. OLDMEDLINE citations do not have abstracts. They also contain non-MeSH subject terms.

### Sample of an OLDMEDLINE citation in PubMed:

☐ 1: [VOGEL JH, PRYOR R, BLOUNT SG Jr.](#) Related Article  
 DIRECT-CURRENT DEFIBRILLATION DURING PREGNANCY.  
JAMA. 1965 Sep 13;193:970-1. No abstract available.  
PMID: 14341154 [PubMed - OLDMEDLINE for Pre1966]

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### MEDLINE Citations

#### What is MEDLINE?

- This is NLM's premier bibliographic database covering the fields of medicine, nursing, dentistry, veterinary medicine, the health care system, the preclinical sciences, and other areas of the life sciences.
- MEDLINE records contain bibliographic citations and in most cases author abstracts from more than **4,600 biomedical journals** published in the United States and 70 other countries.
  - MEDLINE records contain MeSH (Medical Subject Headings) terms, publication types, and other information added by NLM Indexers.
  - Most records are from English-language sources or have English abstracts, although more than 40 languages are represented in MEDLINE.
  - Approximately 76% of MEDLINE records include abstracts as they appear in the journal.
- MEDLINE has **over 12+ million records** dating from the early-fifties to the present and adds about 500,000 indexed citations per year.

#### MEDLINE in PubMed

- MEDLINE records are added to PubMed Tuesday-Saturday.
- After MeSH terms (NLM's controlled vocabulary terms) and other indexing terms are added, the in process citations graduate to MEDLINE records. These "completed" records have also been checked for bibliographic accuracy.
- Fully indexed MEDLINE records carry the status tag **[PubMed – indexed for MEDLINE]**.

Sample MEDLINE citation in PubMed:

*Notice the [PubMed  
– indexed for  
MEDLINE] status  
tag.*

[LiCalsi C, Maniaci MJ, Christensen T, Phillips E, Ward GH, Witham C.](#)  
A powder formulation of measles vaccine for aerosol delivery.  
Vaccine. 2001 Mar 21;19(17-19):2629-36.  
PMID: 11257402 [PubMed - indexed for MEDLINE]

### PubMed's Home Page

#### The Sidebar

##### Entrez PubMed

Overview  
Help | FAQ  
Tutorial  
New/Noteworthy  
E-Utilities

##### PubMed Services

Journals Database  
MeSH Database  
Single Citation  
Matcher  
Batch Citation Matcher  
Clinical Queries  
LinkOut  
Cubby

##### Related Resources

Order Documents  
NLM Gateway  
TOXNET  
Consumer Health  
Clinical Alerts  
ClinicalTrials.gov  
PubMed Central

Privacy Policy

**Text Version** - specifically for users who require special adaptive equipment to access the Web and use PubMed.

#### Entrez PubMed

- Overview provides a detailed description of the PubMed database including database coverage and PubMed journal information.
- Click Help for explanations of all the features and search and retrieval options within PubMed.
- FAQs are answers to frequently asked questions about PubMed.
- The Tutorial is a Web-based, interactive training program for PubMed.
- New/Noteworthy provides information about PubMed system enhancements.
- E-Utilities provides tools to search and retrieve outside of the regular web query interface.

#### PubMed Services

- Use the Journals Database to search for journals; a list of journals with links to full-text is also included in the browser.
- The MeSH Database allows you to find MeSH terms and build a search strategy.
- The Single Citation Matcher allows you to locate a specific article and the Batch Citation Matcher is a tool for publishers.
- The Clinical Queries page was designed for clinicians and has built-in search “filters” including systematic reviews.
- LinkOut provides users with links from PubMed and other Entrez databases to a wide variety of relevant web-accessible online resources including full-text publications.
- The Cubby stores search strategies for updating searches, and LinkOut preferences to specify which LinkOut providers you want displayed in PubMed.

#### Related Resources

- Order Documents is a link to the Loansome Doc feature to order full-text copies of articles from a local medical library (local fees and delivery methods may vary).
- The NLM Gateway, another NLM Web-based service, provides access to MEDLINE and additional NLM databases.
- TOXNET has databases on toxicology, hazardous chemicals, and related areas.
- Consumer Health is a link to MedlinePlus, NLM's Web site for consumer health information.
- Clinical Alerts expedite the release of findings from the NIH-funded clinical trials that could significantly affect morbidity and mortality.
- Click on ClinicalTrials.gov to access the NIH/NLM Web site to locate clinical research studies open to participation.
- PubMed Central is an archive of life science journals. Access is free and unrestricted.
- **Privacy Policy**  
The National Center for Biotechnology Information's Privacy Policy for PubMed users.

## Navigating Your Results

### Searching With PubMed

- PubMed provides many methods of searching to meet users' individual needs. You can run a simple search by entering a few search terms in the query box or construct complex search strategies using Boolean operators and using the various functions provided by the Features bar.
- PubMed's Features bar provides these tools:
  - Limits
  - Preview/Index
  - History
  - Clipboard
  - Details
- In addition, these services are also available:
  - The MeSH Database
  - Clinical Queries
  - My NCBI
  - The Single Citation Matcher
  - The Journals Database



PubMed makes use of **cookies** and **JavaScript** from your Web browser for several functions. For more information about cookies, see PubMed's Help.

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### Entering Search Terms

- Enter significant terms in the query box (e.g., ***angina pain***) and click on the **Go** button.
  - You can use the **Clear** button to erase the contents of the query box.

**Sample Search:**     *Find citations to articles about ***angina*** and ***pain***.*



The screenshot shows the PubMed search bar. On the left, there is a 'Search' label and a dropdown menu currently set to 'PubMed'. To the right of the dropdown is the text 'for' followed by a text input field containing 'angina pain'. To the right of the input field are two buttons: 'Go' and 'Clear'. Below the search bar is a horizontal bar with several links: 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'.

### How Does PubMed Work?

- PubMed uses **Automatic Term Mapping** to retrieve search results based on the keywords (terms) entered in the query box.

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### Automatic Term Mapping Process

- Unqualified terms that are entered in the query box are matched against (in this order):
  - MeSH (Medical Subject Headings) Translation Table
  - Journals Translation Table
  - Author Index

#### 1. MeSH Translation Table contains:

- MeSH Headings and their Entry Term mappings (also known as synonyms) for MeSH terms
- Subheadings
- Mappings derived from the Unified Medical Language System (UMLS)
- Supplementary Concepts and synonyms to the Supplementary Concepts
- Publication Types and their Entry Terms

## Navigating Your Results

### 1. MeSH Translation Table cont'd:

- If a match is found in this translation table, the term will be mapped to the appropriate MeSH term and searched as MeSH **and** as a Text Word. Angina is an entry term for the MeSH term Angina Pectoris.
- **Example:**

**PubMed Translation:** ("angina pectoris"[MeSH Terms] OR angina [Text Word])



When a term is searched as a MeSH Heading, PubMed automatically searches that heading and the more specific headings underneath in the hierarchy. This is called exploding a term.

For example, when searched as a MeSH Term, PubMed will search the heading Angina Pectoris as well as the more specific term(s) in the hierarchy:

**Angina Pectoris**  
[Angina Pectoris, Variant](#)  
[Angina, Unstable](#)  
[Syndrome X](#)

### 2. Journals Translation Table contains:

- Full journal title
- MEDLINE abbreviation
- International Standard Serial Number (ISSN)

**Example:**

**PubMed Translation:** ("N Engl J Med" [Journal Name])



If the journal's name happens to be a MeSH term, PubMed will search the term as a MeSH heading and as a Text Word, and the search will **not** include the term as a journal name. Use the Journals Database (see page 69), the All-Field pull-down menu in Limits, or the journal field tag (see appropriate sections of this workbook) to search for a specific journal.

### 3. Author Index

- If the phrase is not found in the MeSH **or** Journals Translation Tables **and** is a word with one or two letters after it, PubMed then checks the Author Index.
- Enter the author's name in the form of Last Name (space) Initials:

**Examples:**      o'brien jm  
                      adams sh  
                      pogonka t

- If only the first initial is used, PubMed automatically truncates the author's name to account for varying initials.

**Example:**

o'brien j	Go	Clear
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- This search retrieves citations to articles written by o'brien j, o'brien ja, o'brien jz, etc.



If only an author's last name is entered, PubMed will search that name in All Fields (Author field plus all other searchable fields). It will not default to the Author Index because the last name is not followed by initial(s). Special attention is needed when the last name is the same as a MeSH term (see the Search Field Descriptions section of this workbook).

## Navigating Your Results

### 4. If no match is found?

- PubMed breaks apart your terms and repeats the above process until a match is found.
- Terms that don't make a match will be searched in "All Fields." Individual terms will be combined (ANDed) together.

#### Example:

#### PubMed Translation:

((pressure [MeSH Terms] OR pressure [Text Word]) AND point [All Fields])

### A look at the Automatic Term Mapping process:

- PubMed breaks apart a long phrase from right to left:

#### Example:

<u>Searches for:</u>	<u>Results:</u>	<u>Action:</u>
head lice shampoo	No match found	Removes term on right to re-run Automatic Term Mapping process.
head lice	Match found in MeSH Translation Table	<i>head lice</i> will be searched as <i>pediculus [MeSH Terms] OR head lice [Text Word]</i>
shampoo	No match found in Translation tables	<i>shampoo</i> will be searched as <i>shampoo [All Fields]</i>

- PubMed then combines (ANDs) the terms to produce a single search strategy:
  - pediculus[MeSH Terms] OR head lice[Text Word] **AND** shampoo[All Fields]

## Phrase Searching

- Enclose a phrase in quotes to bypass Automatic Term Mapping and to check PubMed's Index of searchable terms for that phrase.
- A term that is hyphenated is also searched as a phrase, e.g., *pressure-point*
  - The Index contains several million phrases generated from words in the title, abstract, and the UMLS.
- **Example:**



A screenshot of a search interface. It features a text input field containing the phrase "pressure point" enclosed in double quotes. To the right of the input field are two buttons: "Go" and "Clear".

**PubMed Translation:** "pressure point"[All Fields]

- If your quoted phrase does not appear in the Index, PubMed will fail to find the phrase even though it may actually appear in citation and abstract data. If this is the case, the double quotes are ignored and the phrase is processed using Automatic Term Mapping.



When you enclose a phrase in double quotes, PubMed will **not** perform Automatic Term Mapping which includes explosions of MeSH terms.

For example, "health planning" **will** include citations that have the MeSH heading, Health Planning, but **will not** include the more specific indentations (e.g., Health Care Rationing, Health Care Reform) that are included with automatic MeSH mapping and explosion.

It is important that searches be entered initially without quotes around terms to benefit from Automatic Term Mapping. Use the Details feature to see how the terms were mapped. If the mapping is not appropriate, or the retrieval was not as specific as desired, quoting terms can then be considered.

## Navigating Your Results

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### Truncation (finding all terms that begin with a given text string)

- Place an asterisk (\*) at the end of a string of characters to search for all terms that begin with that string. The asterisk may only be used at the **end** of a string of characters.
  - **Example:** *mimick\** will find all terms that begin with the letters m-i-m-i-c-k; e.g. mimick, mimicked, mimicks, mimicking.
- PubMed searches the first 600 variations of a truncated term. If a truncated term, e.g. myo\*, produces more than 600 variations, PubMed displays a message on the Results screen in pink near the top of the screen:

Wildcard search for 'myo\*' used only the first 600 variations. Lengthen the root word to search for all endings.



Truncation turns off Automatic Term Mapping. For example, *heart attack\** will not map to the MeSH term, Myocardial Infarction or include any of its more specific terms, e.g., Myocardial Stunning.

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### PubMed Stopword List

PubMed also compares each search with to a list of commonly found terms that are referred to as “stopwords.” Stopwords may be ignored. This list is available in PubMed’s Help.

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### Limit to Free Full Text



To search only for citations that link to free full text, add **free full text [sb]** to your query box along with your search terms.

e	Protein	Genome	Structure	PMC
for	lumbar stenosis AND free full text [sb]			Go
Limits	Preview/Index	History	Clip	

## Search Results Screen

- Once you click on **Go** (or press the Enter key), PubMed will automatically:
  - Run the search
  - Retrieve and display citations
- The following is the Results screen returned by PubMed for the search example:
  - *Find citations to articles about gallstones and pain.*

Active **query box** displaying current search.


The **Action Bar** selections are:  
**Display** options  
**Show** pull-down  
**Sort** options  
**Send to** options  
**Page** button


Citations are displayed in the **Summary** format


The screenshot shows the PubMed search results interface. At the top, there is a search box containing 'gallstones pain' with 'Go' and 'Clear' buttons. Below the search box is the 'Action Bar' with tabs for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. The 'Display' dropdown is set to 'Summary', 'Show' is set to '20', 'Sort' is set to 'Relevance', and 'Send to' is set to 'Text'. Below the Action Bar, it says 'Items 1-20 of 1544' and 'Page 1 of 78' with a 'Next' button. The first two results are listed:


- 1: [Tham TC, Vandervoort J, Wong RC, Montes H, Roston AD, Slivka A, Ferrari AP, Lichtenstein DR, Van Dam J, Nawfel ED, Soetikno R, Carr-Locke DL.](#) [Related Articles](#), [Links](#)  
 Safety of ERCP during pregnancy.  
 Am J Gastroenterol. 2003 Feb;98(2):308-11.  
 PMID: 12591046 [PubMed - in process]
- 2: [Barczy?ski M, Herman RM.](#) [Related Articles](#), [Links](#)  
 A prospective randomized trial on comparison of low-pressure (LP) and standard-pressure (SP) pneumoperitoneum for laparoscopic cholecystectomy.  
 Surg Endosc. 2003 Feb 17 [epub ahead of print]  
 PMID: 12582754 [PubMed - as supplied by publisher]

- The **query box** displays your search.
  - This box is active; you can modify the current search by adding or eliminating terms and clicking on the **Go** button.
  - Click on the **Clear** button to clear the search in the query box and start a new search.
- The **Action Bar** selections are available both at the top and bottom of the Results screens.
- An **Icon** next to a citation indicates if there is an abstract or full-text available for that article.

 This article has no abstract

 Click on the icon to read the abstract

 Click on the green icon link to access free full-text

 Click on the green and orange icon link to access the full-text in PubMed Central (see Free in PMC p.55)

## Navigating Your Results

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### Display Options

- PubMed citations are initially displayed in the **Summary** format.

<a href="#">Simon JA, Hudes ES.</a> Serum ascorbic acid and gallbladder disease prevalence among US adults: the Third National Health and Nutrition Examination Survey (NHANES III). Arch Intern Med. 2000 Apr 10;160(7):931-6. PMID: 10761957 [PubMed - indexed for MEDLINE]	<a href="#">Related Articles</a>
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- The Summary format consists of the following:
  - **Author Name(s):** All authors from the record are displayed.
  - **Links:** Available links such as Related Articles, Protein, Nucleotide, etc. (LinkOut, Books not displayed in the Summary format.)
  - **Title of the article:** Most foreign language titles will be translated into English and placed within brackets.
  - **Source:** Includes journal title abbreviation, date of publication, volume, issue, and pagination.
  - Will also include language (for non-English articles) and Publication Type if the article is a review or retracted publication.
- Articles without abstracts will display the notation: “No abstract available.”
  - PubMed Unique Identifier (**PMID**).
  - A status tag: [PubMed - as supplied by publisher], or [PubMed - in process], or [PubMed - indexed for MEDLINE]

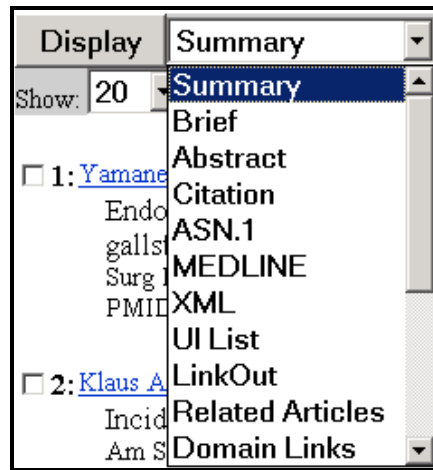
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### Additional Display Options

- You can access other display formats from the Results screen in the following manner:
  - **Individual Citations:** Clicking on the author name link will display the citation in the Abstract display format.
  - **All Citations:** Select the format and click on the **Display** button (see **Other Display Formats** on the next page).
  - **Selected Citations:** Clicking on the box found to the left of the item number allows you to select one or multiple items. Clicking on the **Display** button will display the selected item(s) in the desired display format.

## Other Display Formats

- The pull-down menu next to the **Display** button allows you to select available display formats:



Summary, Abstract, Citation, MEDLINE, Related Articles, and LinkOut are the most appropriate display selections for bibliographic information.

- Citation Format** provides the following information:

<ul style="list-style-type: none"> <li>Source (journal title abbreviation, date of publication, volume, issue and pagination)</li> <li>Title</li> <li>On non-English language articles, [Article in language] tag</li> <li>Author(s)</li> <li>Affiliation (address) of first author</li> <li>Publication Types (except for "Journal Article")</li> <li>Annotations to associated citations (e.g., errata)</li> </ul>	<ul style="list-style-type: none"> <li>MeSH Terms</li> <li>Personal Name as Subject (if present)</li> <li>Chemical substances (if present)</li> <li>Grant numbers (if present)</li> <li>PMID</li> <li>Status tag</li> <li>Links</li> </ul>
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- MEDLINE Format**

- Two to four-character tagged field format displaying all fields of the PubMed record.
- Use this format for downloading records into bibliographic management software programs.

## Navigating Your Results

- **Abstract Format** provides the following information:

- |  |  |
|--|--|
| • Source (journal title abbreviation, date of publication, volume, issue and pagination) | • Publication Types (except for "Journal Article")   |
| • Title  | • Annotations to associated citations (e.g., errata) |
| • On non-English language articles, [Article in language] tag                            | • PMID   |
| • Author(s)  | • Status tag   |
| • Affiliation (address) of first author  | • Links  |
| • Abstract (if present) from published article   |  |

Arch Intern Med 2000 Apr 10;160(7):931-6

[Related Articles, Books, LinkOut](#)

### **Serum ascorbic acid and gallbladder disease prevalence among US adults: the Third National Health and Nutrition Examination Survey (NHANES III).**

**Simon JA, Hudes ES.**

Medical Service, Veterans Affairs Medical Center, San Francisco, Calif, 94121, USA.  
jasimon@itsa.ucsf.edu

**BACKGROUND:** Ascorbic acid-deficient guinea pigs frequently develop gallstones, and ascorbic acid status may also affect the risk of gallbladder disease in humans. To examine the relationship of ascorbic acid, an antioxidant nutrient involved in cholesterol catabolism, to gallbladder disease, we analyzed data collected from a probability sample of US adults. **METHODS:** Analyses of data from 7042 women and 6088 men enrolled in the Third National Health and Nutrition Examination Survey, 1988-1994, were performed. Multiple logistic regression models stratified by sex were examined, controlling for the effects of age, race, diet, body mass index, and other potential confounders. **RESULTS:** A total of 761 women (11%) and 235 men (4%) reported a history of clinical gallbladder disease (symptomatic gallstones or cholecystectomy). Of the 9650 participants without a history of clinical gallbladder disease or abdominal pain consistent with gallbladder disease, and with valid abdominal ultrasonography, 408 (8%) of 4863 women and 274 (6%) of 4787 men had asymptomatic gallstones. Serum ascorbic acid level was inversely related to prevalence of clinical and asymptomatic gallbladder disease among women, but not among men. Among women, each SD (27 micromol/L) increase in serum ascorbic acid level was independently associated with a 13% lower prevalence of clinical gallbladder disease ( $P = .006$ ) and asymptomatic gallstones ( $P = .048$ ). **CONCLUSION:** Ascorbic acid, which affects the catabolism of cholesterol to bile acids and, in turn, the development of gallbladder disease in experimental animals, may affect the risk of gallbladder disease among women.

PMID: 10761957 [PubMed - indexed for MEDLINE]

## Retrieval Summary Line

- The retrieval summary line displays the total number of citations retrieved by the search, and how many pages of citations there are given the selected number of citations per page (see Show).

## Show pull-down Menu

- PubMed initially displays search results in batches of 20 citations per page.

- Click on the **Show** pull-down menu to select a higher/lower number and then click **Display**.
- PubMed redisplay the citations based on your selection.
- You can change the display format and the Show number at the same time.

## Page Button

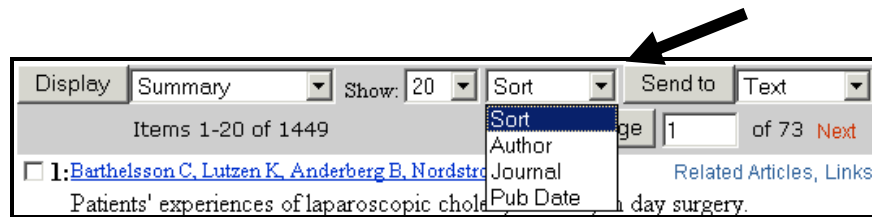
The Results screen has links to the other pages containing the rest of the search results. Click on **Next** to advance to the next page of results.

- The page number for the page currently displayed is in the box next to **Page**.
- Type in a page number and click on **Page** to see the results on that page.

## Navigating Your Results

### Sort pull-down Menu

- To sort items by author, journal, or publication date, click on the **Sort** pull-down menu select a sort field and then click **Display**.



You can sort directly from the results screen, or you can collect citations on the Clipboard and sort the items there.

### Send to Button and Text pull-down Menu

- Use the **Text** pull-down menu to print (**Text**), save (**File**), place items on the **Clipboard**, **E-mail** a citation or to **Order** the full-text copy of articles.
  - Once you select your option from the **Text** pull-down menu, click on the **Send to** button.



- To select your entire set of search results, choose an option from the **Text** pull-down menu and click on the **Send to** button.
- For selected citations, click on the check boxes as you go through each page of your retrieval, choose an option from the **Text** pull-down menu and click on the **Send to** button.

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### Text (Print)

- **Text** will redisplay citations on a single page, omitting the Web or HTML components – you won't print PubMed's sidebar and buttons and you will save paper.
- **To Print:**
  1. Select **Text** from the pull-down menu and click on the **Send to** button.
  2. Use the Print function of your Browser, which will print all of the citations displayed on your Web page.
  3. Use the Back function of your Browser to return to the results page.

1: Barthelsson C, Lutzen K, Anderberg B, Nordstrom G.  
Patients' experiences of laparoscopic cholecystectomy in day surgery.  
J Clin Nurs. 2003 Mar;12(2):253-9.  
PMID: 12603558 [PubMed - in process]

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### File (Save)

- You can create a text file of your citations and save it to your computer or disc.
- **To Save:**
  1. Select **File** from the pull-down menu and click on the **Send to** button.
  2. Your computer will prompt you to name the file and select a directory.

Note: The maximum number of items that can be saved is 10,000.

- You can also save citations collected from multiple searches by using the clipboard.



Before printing or saving to file, consider:

1. Changing the display format (Summary pull-down menu)
2. Using the **Show** pull-down menu to change the number of items displayed on the web page
3. Using the **Sort** pull-down menu to change the order in which the citations are displayed.

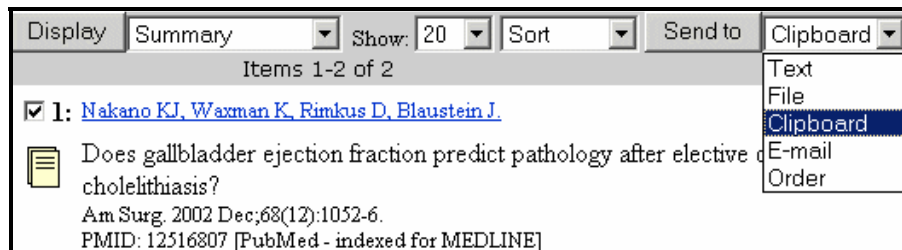
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### Clipboard

- The **Clipboard** allows you to store selected citations from your searches that you may want to print, save, e-mail or order (see *Using the Clipboard* in the Features Section of this Workbook).

## Navigating Your Results

- To place an item in the **Clipboard**, click on the check box next to the citation. Choose **Clipboard** from the **Text** pull-down menu and then click on **Send to**.
  - The maximum number of items that can be placed in the Clipboard is **500**.



- Note: If you click on Send to Clipboard without using the check boxes, PubMed will store all of the citations from your current search results (maximum 500).
- Once you have added a citation to the Clipboard, the item number color will change and PubMed will display the message below.

23 items were added to Clipboard.  
Clipboard items will be lost after eight hours of inactivity.  
The maximum number of Clipboard items is 500.

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## E-Mail

- **E-mail** up to 500 items
  - Options include Format, Sort, HTML or Text. The HTML option displays hyperlinks to Related Articles, LinkOut, and other PubMed features. The recipient's e-mail service must be set for HTML view to allow for proper display of this format.
  - You may also include a short personal message to send with your e-mailed PubMed results.
  - The “sender” of these messages is “Sent by Entrez.”

## Features Bar



- The Features Bar offers several additional functions.

### Limits

- Click on **Limits** on the Features Bar to bring up the Limits page.

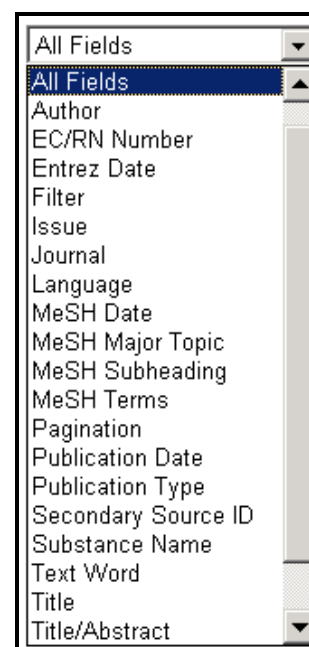
The screenshot shows the 'Limits' page with the following elements:

- Navigation Tabs:** Limits (active), Preview/Index, History, Clipboard, Details.
- Instructions:**
  - Use All Fields pull-down menu to specify a field.
  - Boolean operators AND, OR, NOT must be in upper case.
  - If search fields tags are used enclose in square brackets, e.g., rubella [ti].
  - Search [limits](#) may exclude in process and publisher supplied citations.
- Limited to:**
  - All Fields** (pull-down menu)
  - ☐ only items with abstracts
  - Publication Types** (pull-down menu)
  - Languages** (pull-down menu)
  - Subsets** (pull-down menu)
  - Ages** (pull-down menu)
  - Human or Animal** (pull-down menu)
  - Gender** (pull-down menu)
  - Entrez Date** (pull-down menu)
  - Publication Date** (pull-down menu) From [ ] [ ] [ ] To [ ] [ ] [ ]
- Footer:** Use the format YYYY/MM/DD; month and day are optional.

### Field Selection

- You may limit your search terms to a specific search field.
- To select a specific field, click the **All Fields** pull-down menu and select a search field. Enter multiple terms separated by Boolean operators.

Example: Select **MeSH Terms** from the pull-down, enter *bed rest AND pain* in the query box, click **Go**.



## Features Bar

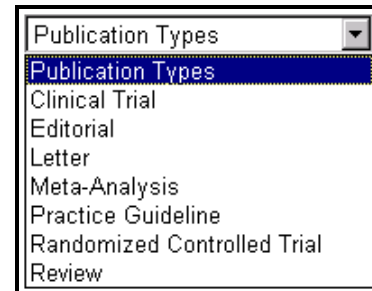
### Only items with abstracts

☒ only items with abstracts

- Click in this box to limit your retrieval to only citations with an abstract.

### Publication Types

- You may limit your retrieval based on the type of material the citation represents.
- The **Publications Types** pull-down menu contains a list of frequently searched publication types. The full list of Publication Types can be found in Help. Or use the Preview/Index feature to view and search Publication Types.



### Languages

- Journals from approximately forty languages are indexed.
- The **Languages** pull-down menu contains a list of frequently searched languages. The full list of Languages can be viewed and searched using the Preview/Index feature.



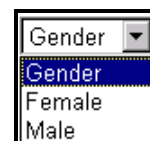
### Ages

- To search for a specific age group for human studies, click on the **Ages** pull-down menu and make a selection.



### Gender

- To search for a specific gender, click on the **Gender** pull-down menu and make a selection.



## Human or Animal

- To search for a specific study group, click on the **Human or Animal** pull-down menu and make a selection.

## Dates

- PubMed contains citations published back to the early-fifties.
- New citations are added Tuesday-Saturday.
- You may restrict to two date fields from the Limits screen:
- Entrez Date:** the date the citation was initially added to PubMed
- Publication Date:** the date the article was published
- When PubMed displays your search results, the citations are displayed in Entrez Date order – last in, first out.

## Limiting by Dates

- Use the **Entrez Date** pull-down menu to limit your search back in time from 30 days to 10 years.

- The **Publication Date** pull-down menu toggles between Publication Date and Entrez Date.

## Examples:

- Use the **From:** and **To:** boxes to specify a range of dates.
- Enter the dates in the format of **YYYY/MM/DD** (month and day are optional).

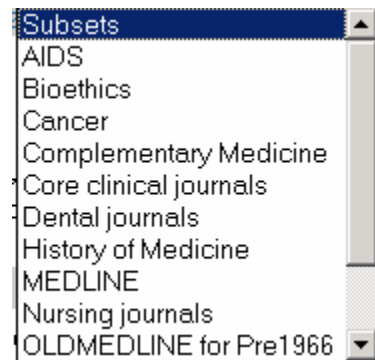
## Features Bar

### Subsets

Allows you to limit your retrieval to one of the four types of groupings of records:

#### 1. Subjects:

- ▶ AIDS
- ▶ Bioethics
- ▶ Cancer
- ▶ Complementary Medicine
- ▶ History of Medicine
- ▶ Space Life Sciences
- ▶ Toxicology



#### 2. MEDLINE

- ▶ Completed citations with MeSH headings and other indexing terms that have also been checked for accuracy

#### 3. Journal groupings:

- ▶ Core clinical journals: 120 English-language journals from the formerly published *Abridged Index Medicus*
- ▶ Dental
- ▶ Nursing

#### 4. Other:

- ▶ OLDMEDLINE: journal citations from 1953-1965
- ▶ PubMed Central: full-text articles available for free in NLM's digital archive

## Limits Indicator



- Once you have selected Limits, a check box appears next to the Limits on the Features Bar.
- If you run a search, the limits in effect will appear in the yellow bar above the Display button:

**Limits: English, Review**



To **turn off all of the limits** before you run your next search, click on the check box next to Limits on the Features Bar to remove the check and turn off the limits.

## History



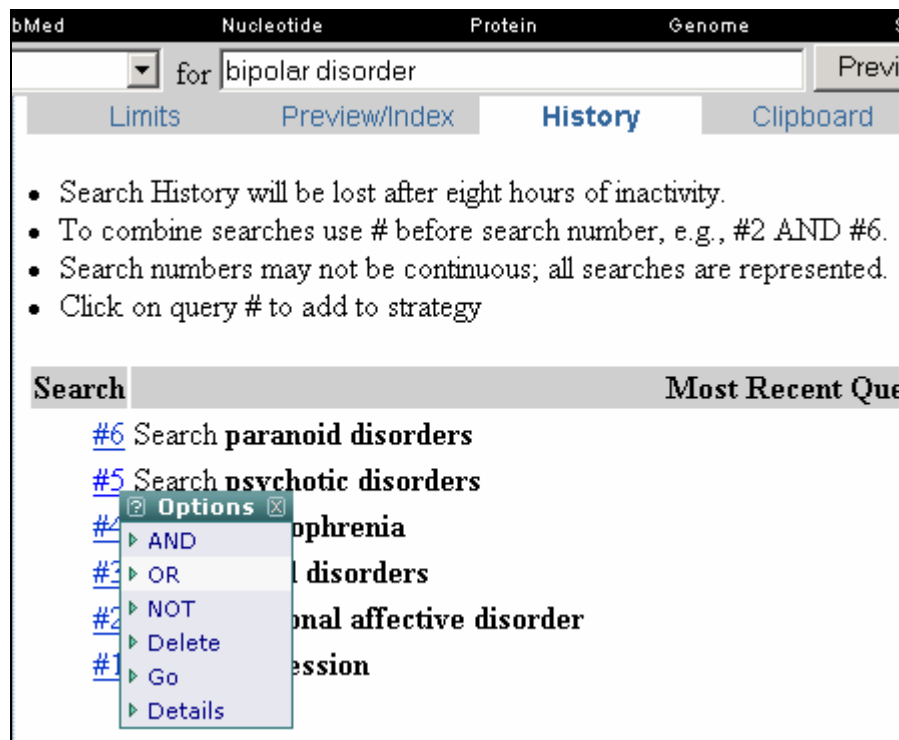
- The History screen displays:
  - Your search query
  - The time of the search
  - The number of citations in your search results

Limits Preview/Index History Clipboard Details				
<ul style="list-style-type: none"> <li>Search History will be lost after eight hours of inactivity.</li> <li>To combine searches use # before search number, e.g., #2 AND #6.</li> <li>Search numbers may not be continuous; all searches are represented.</li> <li>Click on query # to add to strategy</li> </ul>				
Search	Most Recent Queries	Time	Result	
#6	Search <b>paranoid disorders</b>	11:26:15	<a href="#">5369</a>	
#5	Search <b>psychotic disorders</b>	11:26:07	<a href="#">22584</a>	
#4	Search <b>schizophrenia</b>	11:25:57	<a href="#">63770</a>	
#3	Search <b>mood disorders</b>	11:25:47	<a href="#">62355</a>	
#2	Search <b>seasonal affective disorder</b>	11:25:38	<a href="#">944</a>	
#1	Search <b>depression</b>	11:25:23	<a href="#">167958</a>	

## Using History

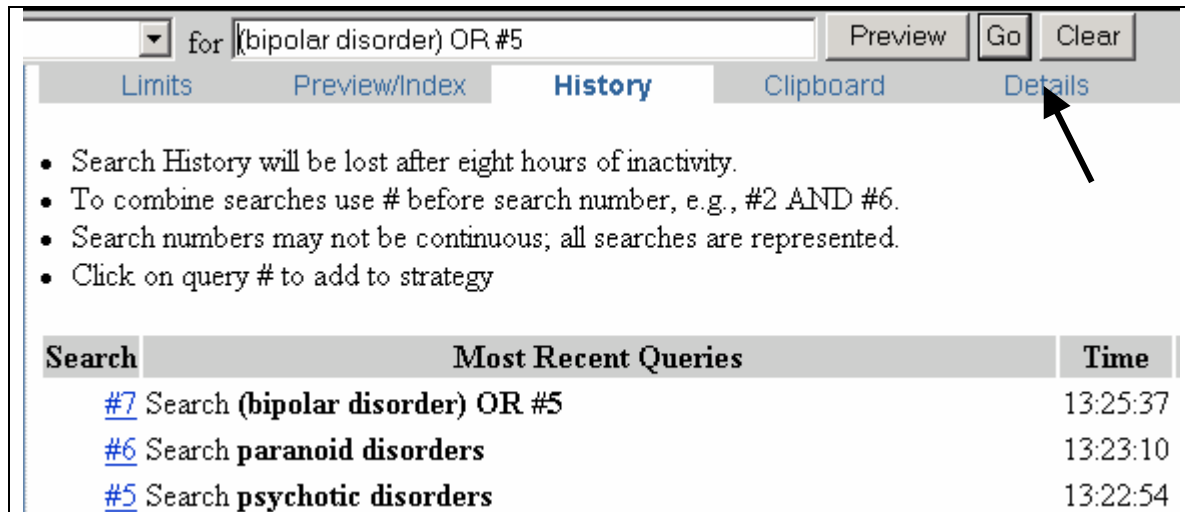
You can use the search statement numbers shown in History to construct searches. When you click on a linked search statement number, you will open a menu of options. The first three choices are Boolean operators.

### Example:



Type **bipolar disorder** into the search box. Click on search statement #5, choose **OR** from the menu.

## Features Bar



- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Search	Most Recent Queries	Time
<a href="#">#7</a>	Search (bipolar disorder) OR #5	13:25:37
<a href="#">#6</a>	Search paranoid disorders	13:23:10
<a href="#">#5</a>	Search psychotic disorders	13:22:54

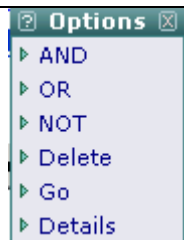
Click on **Go** next to the preview button to run the search. Your last search now becomes Search #7.

### Other options from the menu:

By choosing **Delete** from the menu, you can delete individual search statements from History.

Clicking on **Go** will run the search.

Clicking on **Details** you can view your search strategy as it was translated using PubMed's automatic term mapping, other search rules, and syntax. Offering **Details** as a choice on this menu saves you from having to pull up the results of your search and then using the *Details* link in the features bar.



You can still add search numbers to the query box manually. Remember that Boolean operators must be typed in all uppercase letters.



**Search Tip:**

To add previous searches to the terms in the query box, continue clicking on the search numbers and choosing Boolean operators. Notice that PubMed nests the terms in the query box.



**Take Note:**

Use the **Preview** button to preview the number of search results before displaying the citations.

**History Tips:**

- ✓ Maximum number of queries that can be held in History is **100**.
- ✓ Your search history will be **lost after 8 hours of inactivity**.
- ✓ PubMed will move a search statement number to the top of the History if the new search is the same as a previous search.
- ✓ **Caution:** Search statement numbers from History should not be used in a strategy that you intend to save using the URL button in Details or in search strategies you plan to store in the Cubby.

Why not? Although the strategy will be saved, your History will expire. Any search statement numbers included in the saved strategy will be gone, or possibly replaced by other searches.



Click on the **Clear History** button available at the bottom of the History screen to remove all searches from the History.

### Preview/Index Overview



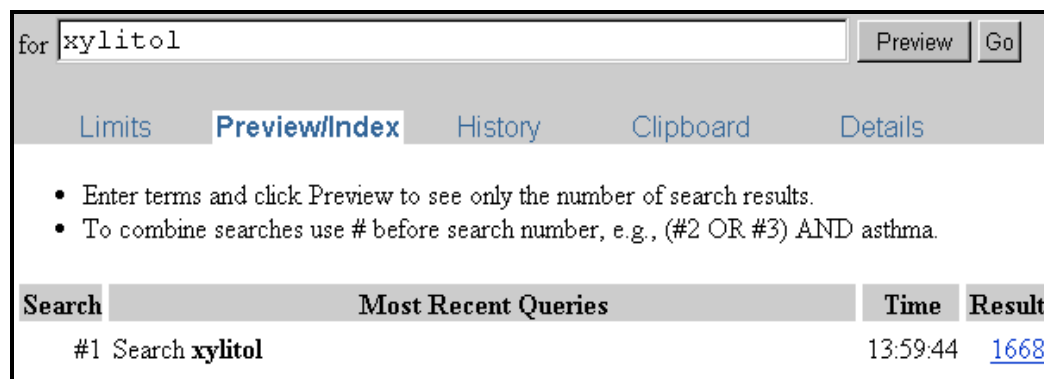
- This page is home to two functions: **Preview** and **Index**.
- Use **Preview/Index** to:
  - Preview the number of search results before displaying the citations.
  - Refine search strategies by adding one or more terms, one at a time.
  - Add terms to a strategy from specific search fields.
  - View and select terms from the Index to develop search strategies.
  - View your search strategy as you continue to refine your search.

### Preview

- Previewing the number of search results before displaying the citations
  - **Search Request:** *Find citations about xylitol and tooth decay.*
  - Enter terms in the query box and click **Preview**.



- PubMed returns the number of citations but not the actual results.



The screenshot shows the 'Preview/Index' page with the search term 'xylitol' entered. Below the navigation bar, there are instructions on how to use the search function. At the bottom, a table displays the most recent queries.

Search	Most Recent Queries	Time	Result
#1	Search xylitol	13:59:44	<a href="#">1668</a>

*Result shows the number of citations.*

- Refining search strategies by adding one or more terms at a time
  - Add another term (e.g., *tooth decay*) to the query box and click **Preview**.
  - View your search strategy and number of results as you continue to refine your search.

***Preview** shows search strategy and number of results as each term is added*

for

[Limits](#) [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

- Enter terms and click Preview to see only the number of search results.
- To combine searches use # before search number, e.g., (#2 OR #3) AND asthma.

Search	Most Recent Queries	Time	Result
#2	Search <b>tooth decay xylitol</b>	14:00:58	<a href="#">221</a>
#1	Search <b>xylitol</b>	13:59:44	<a href="#">1668</a>



**Preview** displays the last three queries from History. Use History to review up to the last 100 queries. The Clear History button in History also clears the history information from the Preview/Index.



History will be lost after 8 hours of inactivity on PubMed.

## Features Bar

### Index

- Viewing and selecting terms from the Index to develop search strategies
  - Use the **Index** button to view and select terms from the Index and to add them to your search strategy.
  - The Index allows you to view a listing of searchable terms within a search field.
  - You may also select terms to build a search strategy using Boolean operators.
- Selecting a field and entering a term to look up in the Index
  - **Search Request:** Find patient information about anthrax.
    - On the Preview/Index screen enter *anthrax* in the PubMed query box:



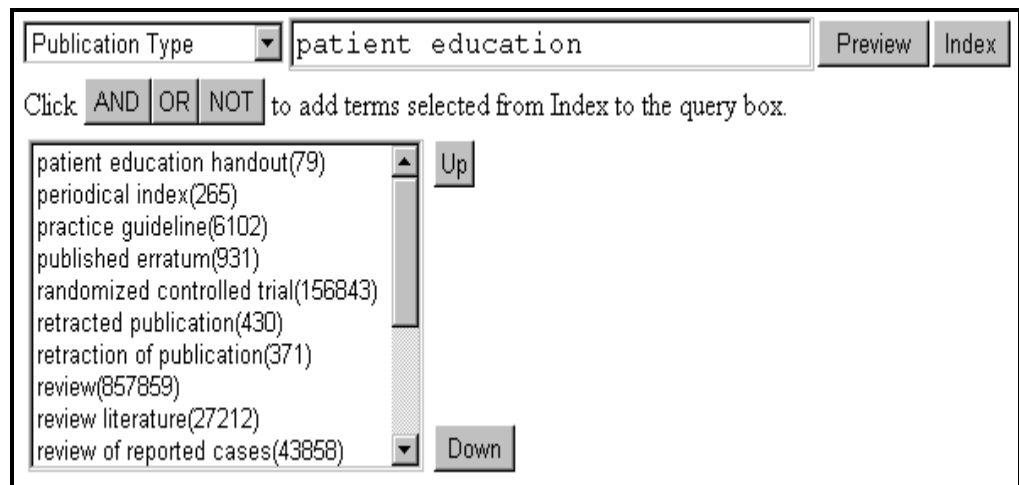
Search PubMed for anthrax [Preview] [Go] [Clear]

- Select **Publication Type** from the pull-down menu, type the term, *patient education* and click on the **Index** button.

*PubMed displays a portion of the alphabetical list of available terms for the selected search field. Scroll up/down this window using the **scroll bar**.*

*The number of citations that contain the term appears in parentheses to the right of the term.*

*To scroll up/down the entire Index for the field, click the **Up/Down** buttons.*



Publication Type [patient education] [Preview] [Index]

Click [AND] [OR] [NOT] to add terms selected from Index to the query box.

patient education handout(79)	Up
periodical index(265)	
practice guideline(6102)	
published erratum(931)	
randomized controlled trial(156843)	
retracted publication(430)	
retraction of publication(371)	
review(857859)	
review literature(27212)	
review of reported cases(43858)	
	Down

- Selecting a term from the Index
  - Click on the term to highlight it and then click on **Preview**.

Publication Type

Click    to add terms selected from Index to the query box.

patient education handout(79)

periodical index(265)

practice guideline(6102)

published erratum(931)

randomized controlled trial(156843)

retracted publication(430)

retraction of publication(371)

review(857859)

review literature(27212)

review of reported cases(43858)

- Continue viewing, selecting, and previewing search terms until your strategy is complete.

*Query box shows the search term and the search field.*

for

[Limits](#) [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

- Enter terms and click Preview to see only the number of search results.
- To combine searches use # before search number, e.g., (#2 OR #3) AND asthma.

Search	Most Recent Queries	Time	Result
#3 Search	anthrax AND "patient education handout"[Publication Type]	14:18:36	<a href="#">3</a>
#2 Search	tooth decay xylitol	14:05:49	<a href="#">221</a>
#1 Search	xylitol	13:59:44	<a href="#">1668</a>

*Result shows the number of citations.*



**Preview** automatically ANDs together selected search terms and previews the search. Use the **Boolean operators** to combine search terms as needed. If you use the Boolean operators, your search terms are added to the PubMed query box and you must click Preview to see the number of results.



To OR together multiple terms from an Index display and then add (i.e., AND) them to your search, click on each term while holding down the Ctrl-key (PC) or the Command-key (Mac). When all the terms you want are highlighted, click the connector AND to add the terms (OR'ed together) to the query.

## Features Bar

### History



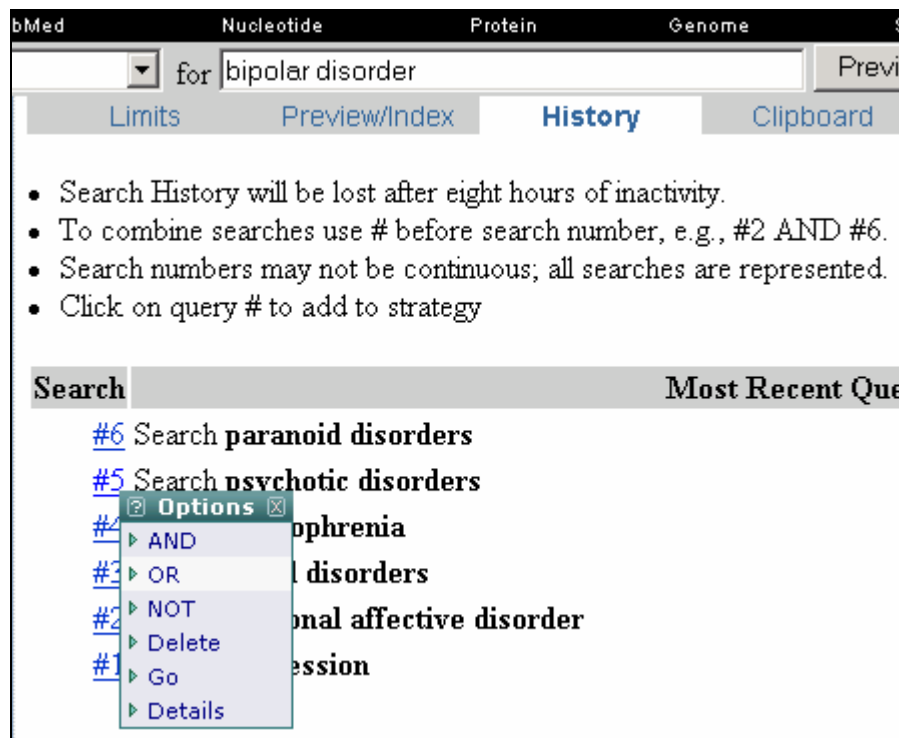
- The History screen displays:
  - Your search query
  - The time of the search
  - The number of citations in your search results

Limits	Preview/Index	History	Clipboard	Details
<ul style="list-style-type: none"><li>• Search History will be lost after eight hours of inactivity.</li><li>• To combine searches use # before search number, e.g., #2 AND #6.</li><li>• Search numbers may not be continuous; all searches are represented.</li><li>• Click on query # to add to strategy</li></ul>				
Search	Most Recent Queries		Time	Result
<a href="#">#6</a> Search <b>paranoid disorders</b>			11:26:15	<a href="#">5369</a>
<a href="#">#5</a> Search <b>psychotic disorders</b>			11:26:07	<a href="#">22584</a>
<a href="#">#4</a> Search <b>schizophrenia</b>			11:25:57	<a href="#">63770</a>
<a href="#">#3</a> Search <b>mood disorders</b>			11:25:47	<a href="#">62355</a>
<a href="#">#2</a> Search <b>seasonal affective disorder</b>			11:25:38	<a href="#">944</a>
<a href="#">#1</a> Search <b>depression</b>			11:25:23	<a href="#">167958</a>

### Using History

You can use the search statement numbers shown in History to construct searches. When you click on a linked search statement number, you will open a menu of options. The first three choices are Boolean operators.

### Example:



Type **bipolar disorder** into the search box. Click on search statement #5, choose **OR** from the menu.

The screenshot shows the PubMed search interface. At the top, there is a search bar with the text "for (bipolar disorder) OR #5". To the right of the search bar are buttons for "Preview", "Go", and "Clear". Below the search bar is a menu bar with tabs: "Limits", "Preview/Index", "History", "Clipboard", and "Details". An arrow points to the "Details" tab. Below the menu bar, there is a list of search history items:

- Search History will be lost after eight hours of inactivity.
- To combine searches use # before search number, e.g., #2 AND #6.
- Search numbers may not be continuous; all searches are represented.
- Click on query # to add to strategy

Below the list is a table titled "Most Recent Queries" with columns "Search", "Most Recent Queries", and "Time".

Search	Most Recent Queries	Time
<a href="#">#7</a>	Search (bipolar disorder) OR #5	13:25:37
<a href="#">#6</a>	Search paranoid disorders	13:23:10
<a href="#">#5</a>	Search psychotic disorders	13:22:54

Click on **Go** next to the preview button to run the search. Your last search now becomes Search #7.

### Other options from the menu:

By choosing **Delete** from the menu, you can delete individual search statements from History.

Clicking on **Go** will run the search.

Clicking on **Details** you can view your search strategy as it was translated using PubMed's automatic term mapping, other search rules, and syntax. Offering **Details** as a choice on this menu saves you from having to pull up the results of your search and then using the *Details* link in the features bar.



You can still add search numbers to the query box manually. Remember that Boolean operators must be typed in all uppercase letters.



To add previous searches to the terms in the query box, continue clicking on the search numbers and choosing Boolean operators. Notice that PubMed nests the terms in the query box.



Use the **Preview** button to preview the number of search results before displaying the citations.

## Features Bar

### History Tips:

- ✓ Maximum number of queries that can be held in History is **100**.
- ✓ Your search history will be **lost after 8 hours of inactivity**.
- ✓ PubMed will move a search statement number to the top of the History if the new search is the same as a previous search.
- ✓ **Caution:** Search statement numbers from History should not be used in a strategy that you intend to save using the URL button in Details or in search strategies you plan to store in the Cubby.

Why not? Although the strategy will be saved, your History will expire. Any search statement numbers included in the saved strategy will be gone, or possibly replaced by other searches.

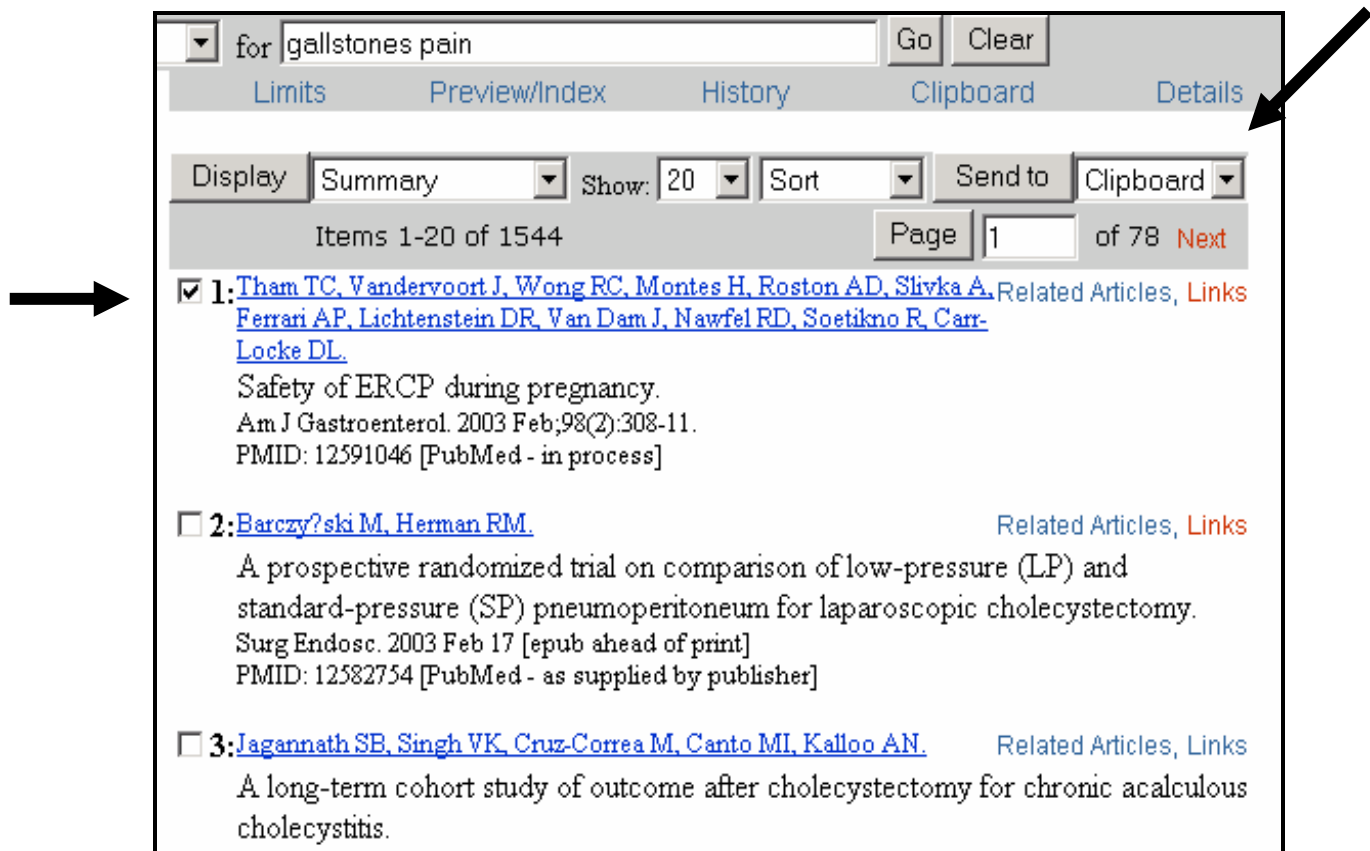


Click on the **Clear History** button available at the bottom of the History screen to remove all searches from the History.

## Clipboard



- **Clipboard** allows you to collect selected citations from one search or several searches.
- You can **sort**, **print**, **save**, **e-mail** or **order** the citations on the Clipboard.
  - To place items on the Clipboard, see page 26.



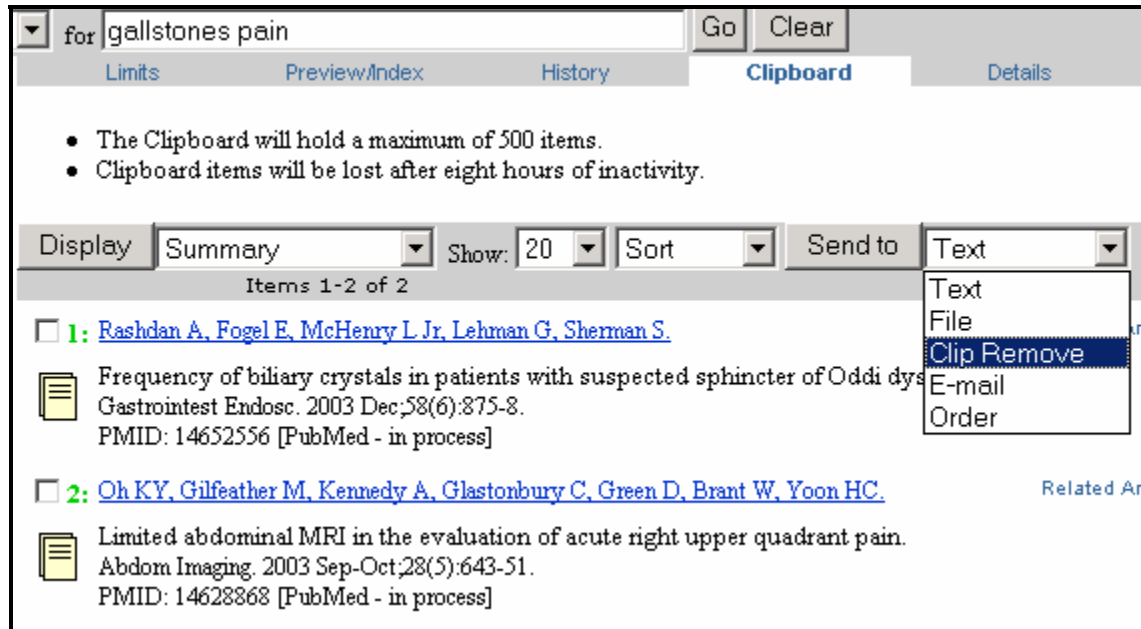
## Clipboard Tips:

- ✓ If you do not select citations using the checkboxes, PubMed will add up to 500 citations from your retrieval to the Clipboard.
- ✓ The maximum number of items that can be added to the clipboard is 500.
- ✓ The clipboard will be lost after 8 hours of inactivity.

## Features Bar

### Using the Clipboard

- To view the contents of your clipboard, click on **Clipboard** from the Features bar.



### Deleting citations from the Clipboard

- To delete citations on the Clipboard, click on the box to the left of the item number. Choose **Clip Remove** from the Text pull-down menu. Click on **Send to**.
- To empty the entire Clipboard, simply choose **Clip Remove** and click on **Send to**.



**Search Tip:**

Citations on the Clipboard may be incorporated into a search statement using #0. For example, limit the items on the Clipboard to English language citations using the following search: **#0 AND english [la]**

This does not affect or replace the Clipboard contents.

## Details



- Click on **Details** to view your search query as it was translated by PubMed including MeSH term and PubMed phrase index mappings.
  - Error messages (e.g., stopwords, truncation warnings, and misspellings) are also displayed.
- The PubMed Query box in Details allows you to edit a search strategy and resubmit it.
- Details also allow you to save a search strategy.

### Here's a closer look at Details:

You can modify the search strategy if you wish and then click on the **Search** button.

Click on the **URL** button to create a URL that allows you to save your search strategy.

Click on the **Result** number hyperlink to return to the current search results.

PubMed Translations

for

Limits Preview/Index History Clipboard **Details**

**PubMed Query:**

```
(("food hypersensitivity"[MeSH Terms] OR food allergies[Text Word]) AND ("infant"[MeSH Terms] OR infants[Text Word]))
```

**Result:**

[2225](#)

**Translations:**

food allergies[All Fields]	("food hypersensitivity"[MeSH Terms] OR food allergies[Text Word])
infants[All Fields]	("infant"[MeSH Terms] OR infants[Text Word])

**Database:**

PubMed

**User Query:**

food allergies infants

## Features Bar

### Saving a search strategy from Details:

- Click on the **URL** button. PubMed will return to the search results screen. The translated search strategy will be displayed in the query box and this search strategy will also be embedded as part of the URL.
- Next, use your Web browser's bookmark (favorites) function to save the URL as a bookmark. After saving the bookmark, you may want to use your Web browser's edit functions to rename the bookmark.



Save a search strategy using the **URL** button if you want to email the URL to a colleague or create a link on a Web page.

## Practice Exercises

1. Find references about shingles and facial paralysis. How does PubMed map the term, shingles?
2. Find references about hypertension and a nosebleed. How does PubMed map the term, nosebleed? Display all of the retrieved records on one Web page.
3. Using only the query box, find some information about using a living donor for a liver transplantation. Using Limits, further restrict the search to only review articles. Display the results so you can see the entire retrieval on one page.
4. Find references about injuries from backpacks or backpacking. Bookmark this search strategy so the search can be run again at a later date.
5. Find citations about using botox to treat migraines. Add the search results to the Clipboard. Go to the Clipboard to see the items.

### Suggested Answers

1. Find references about shingles and facial paralysis. How does PubMed map the term, shingles?

Enter *shingles facial paralysis* in the query box, click **Go**. Click on **Details** to see that the term shingles maps to the MeSH heading **Herpes Zoster**.

The screenshot shows the PubMed search interface. At the top, there is a search bar with the text 'shingles facial paralysis' and buttons for 'Go' and 'Clear'. Below the search bar are tabs for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. The 'Details' tab is selected. The main content area is divided into sections: 'PubMed Query:' showing the constructed query: `((("herpes zoster"[MeSH Terms] OR shingles[Text Word]) AND ("facial paralysis"[MeSH Terms] OR facial paralysis[Text Word]))`; 'Result:' showing the number '291'; 'Translations:' showing the mapping of 'shingles' to `("herpes zoster"[MeSH Terms] OR shingles[Text Word])` and 'facial paralysis' to `("facial paralysis"[MeSH Terms] OR facial paralysis[Text Word])`; 'Database:' showing 'PubMed'; and 'User Query:' showing 'shingles facial paralysis'.

for shingles facial paralysis

[Limits](#) [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

**PubMed Query:**

```
((("herpes zoster"[MeSH Terms] OR shingles[Text Word]) AND ("facial paralysis"[MeSH Terms] OR facial paralysis[Text Word]))
```

**Result:**

[291](#)

**Translations:**

shingles[All Fields]	("herpes zoster"[MeSH Terms] OR shingles[Text Word])
facial paralysis[All Fields]	("facial paralysis"[MeSH Terms] OR facial paralysis[Text Word])

**Database:**

PubMed

**User Query:**

shingles facial paralysis

2. Find references about hypertension and a nosebleed. How does PubMed map the term, nosebleed? Display all of the retrieved records on one Web page.

**Details:**

for

[Limits](#)
[Preview/Index](#)
[History](#)
[Clipboard](#)
[Details](#)

**PubMed Query:**

{ ("hypertension"[MeSH Terms] OR hypertension[Text Word]) AND ("epistaxis"[MeSH Terms] OR nosebleed[Text Word]) }

**Result:**

[88](#)

**Translations:**

hypertension[All Fields]	("hypertension"[MeSH Terms] OR hypertension[Text Word])
nosebleed[All Fields]	("epistaxis"[MeSH Terms] OR nosebleed[Text Word])

**Database:**

PubMed

**User Query:**

hypertension nosebleed

The term, nosebleed, maps to the MeSH heading, **epistaxis**. From the **Show** pull-down menu, choose a number higher than your final retrieval set in order to display all the records on one Web page. Click the **Display** button.

## Features Bar

- Using only the query box, find some information about using a living donor for a liver transplantation. Using Limits, further restrict the search to only review articles. Display the results so you can see the entire retrieval is on one page.

for

☒ Limits [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

**PubMed Query:**

```
((("living donors"[MeSH Terms] OR living donor[Text Word]) AND ("liver transplantation"[MeSH Terms] OR liver transplantation[Text Word])) AND Review[ptyp])
```

**Result:**

[54](#)

Then Display the results so the entire retrieval is on one page.

*Select desired format.*

*Use the **Show** pull-down menu to display all the items on the same Web page.*

for

☒ Limits [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

**Limits: Review**

Items 1-95 of 95 One page.

4. Find references about injuries from backpacks or backpacking. Bookmark this search strategy so the search can be run again at a later date.

### Details:

*If you truncate backpack\* you pick up:*

*Backpack  
Backpacker  
Backpackers  
Backpacking  
backpacks*

for

[Limits](#)
[Preview/Index](#)
[History](#)
[Clipboard](#)
[Details](#)

**PubMed Query:**

```

(((("injuries"[Subheading] OR "wounds and injuries"[MeSH Terms]) OR injuries[Text Word]) AND (((backpack[All Fields] OR backpacker[All Fields]) OR backpackers[All Fields]) OR backpacking[All Fields]) OR backpacks[All Fields]))

```

**Result:**

[9](#)

**Translations:**

injuries[All Fields]	((("injuries"[Subheading] OR "wounds and injuries"[MeSH Terms]) OR injuries[Text Word])
----------------------	---

**Database:**

PubMed

**User Query:**

injuries backpack\*

Use the URL button from Details to have PubMed embed the search strategy into a URL. Use your Web browser's bookmark function to save this URL.

## Features Bar

- Find citations about using botox to treat migraines. Add the search results to the Clipboard. Go to the Clipboard to see the items.

Enter **botox migraines** in the query box. Click on **Send to Clipboard** to add all the items to the Clipboard.

for

[Limits](#) [Preview/Index](#) [History](#) [Clipboard\\*](#) [Details](#)

Display  Show:  Sort  Send to

Items 1-20 of 23 Page  of 2 [Next](#)

☐ 1: [\[No authors listed\]](#) [Related Articles, Links](#)

New medications show promise for migraine sufferers.  
Dent Today. 2002 Oct;21(10):70. No abstract available.  
PMID: 12382492 [PubMed - indexed for MEDLINE]

☐ 2: [Klein AW](#) [Related Articles, Links](#)

Treatment of migraine.  
N Engl J Med. 2002 Sep 5;347(10):764-6; author reply 764-6. No abstract available.  
PMID: 12214628 [PubMed - indexed for MEDLINE]

☐ 3: [Klein AW](#) [Related Articles, Links](#)

Complications and adverse reactions with the use of botulinum toxin.  
Dis Mon. 2002 May;48(5):336-56. Review.  
PMID: 12195264 [PubMed - indexed for MEDLINE]

Once you click on Send to Clipboard, the following message tells you the items were added.

23 items were added to Clipboard.  
Clipboard items will be lost after eight hours of inactivity.  
The maximum number of Clipboard items is 500.

To see the items on the Clipboard, click on **Clipboard** on the Features Bar.

## Related Articles

- Citations in PubMed have a **Related Articles** link. Clicking on this link will access the citations in PubMed that are most closely related to the original citation.
- To create this list of Related Articles, PubMed compares words from the Title and Abstract of each citation, as well as the MeSH headings assigned, using a powerful word-weighted algorithm.
- The Related Articles citations display is in rank order from most to least relevant. The citation you linked from is displayed first.



A detailed explanation of the Related Articles algorithm is available in the PubMed **Help** under **Links, Related Articles, Computation of Related Articles**.

➤ **Example:** Find citations to articles about flying while drunk.

*Related Articles  
Link*

- This search retrieves only 1 citation. Click on the Related Articles link and PubMed will display a list of related citations.

### Links to Other Resources and NCBI Databases

The **Links** pull-down menu was created to support new ways of using the ever growing number of links between records in the Entrez databases. All links, except for Related Articles, are included in the new pull-down menu.

- LinkOut
  - LinkOut provides links from PubMed and other Entrez databases to a wide variety of relevant web-accessible online resources including full-text publications. Full-text is available when you see an icon link on the Abstract or Citation display formats.
- Free in PMC
  - Use the **Free in PMC** links to access free full-text at PubMed Central (PMC). PubMed Central [pubmedcentral.gov] is the National Institutes of Health's repository for peer-reviewed primary research reports in the life sciences.
- Books
  - Books links take you from terms in titles and abstracts to the full-text of biomedical textbooks.
- Links to NCBI Databases (Entrez)
  - **Protein** - Protein sequences from Swiss-Prot, PIR, PRF, PDB, and translated protein sequences from the DNA sequences databases.
  - **Nucleotide** - DNA sequences from GenBank, EMBL, and DDBJ.
  - **OMIM** - Online Mendelian Inheritance in Man. This database is a catalog of human genes and genetic disorders authored and edited by Dr. Victor A. McKusick and his colleagues at Johns Hopkins and elsewhere, and developed for the Web by NCBI.
  - **PopSet** - The PopSet database contains aligned sequences submitted as a set from a population, phylogenetic or mutation study describing such events as evolution and population variation.
  - **Structure** - The Molecular Modeling Database (MMDB) contains 3-dimensional structures determined by X-ray crystallography and NMR spectroscopy.
  - **Genome** - Provides access to records and graphic displays of entire genomes and chromosomes for megabase sequences obtained from large-scale sequencing of genomes and chromosomes.
  - **Taxonomy** - The NCBI taxonomy database contains the names of all organisms that are represented in the genetic databases with at least one nucleotide or protein sequence

## Searching With MeSH

- Two selections are available for MeSH searching from the Search Field selection pull-down menu in Limits:

**MeSH Terms** - Use when you want to specify that a term is searched only as a MeSH heading not also as a Text Word.

**MeSH Major Topic** - Use when you wish to limit to articles where the topic is the main point of the article.

The following MeSH fields are also available for searching:

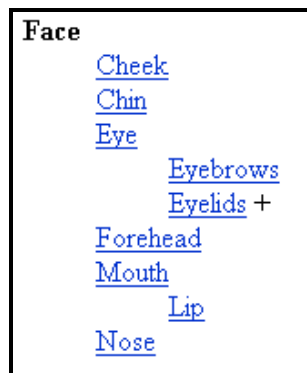
**MeSH Subheadings** – Combine with MeSH terms to focus your search to a particular aspect of a subject.

**MeSH Date** – The date an article was indexed with MeSH terms.



When a term is searched as a MeSH Heading, PubMed automatically searches that heading and the more specific headings underneath in the hierarchy. This is called exploding a term.

**For example**, the MeSH term **Face** when searched as MeSH Term in PubMed would search the heading Face as well as all the more specific terms below the term in the hierarchy:



Searching with MeSH terms will **exclude** in process citations and publisher-supplied citations as they have not been indexed with MeSH headings.

## Other Resources

### PubMed's MeSH Database

- PubMed's MeSH Database allows you to:

Locate and select MeSH terms for searching.

See the definition and other helpful information for a MeSH term.

Display MeSH terms in the hierarchy.

Build a PubMed search strategy.

Limit MeSH terms to a major concept for a search.

Attach subheadings for a search.

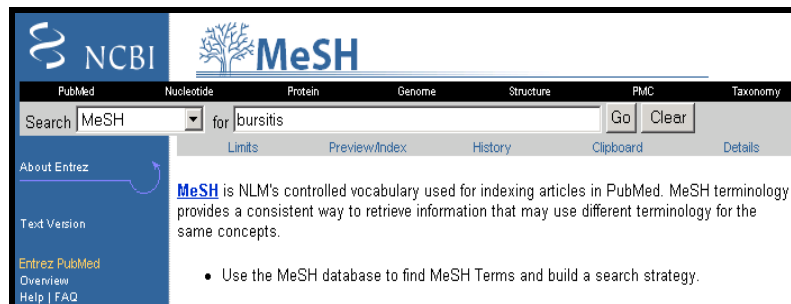
Link to the NLM MeSH Section's MeSH Browser

### How to Get There

- Click on **MeSH Database** on the sidebar.

Now, let's use the MeSH Database to build a search strategy for a search for citations about the *diagnosis of bursitis*.

Enter *bursitis*  
in the query  
box and click  
the **Go** button.



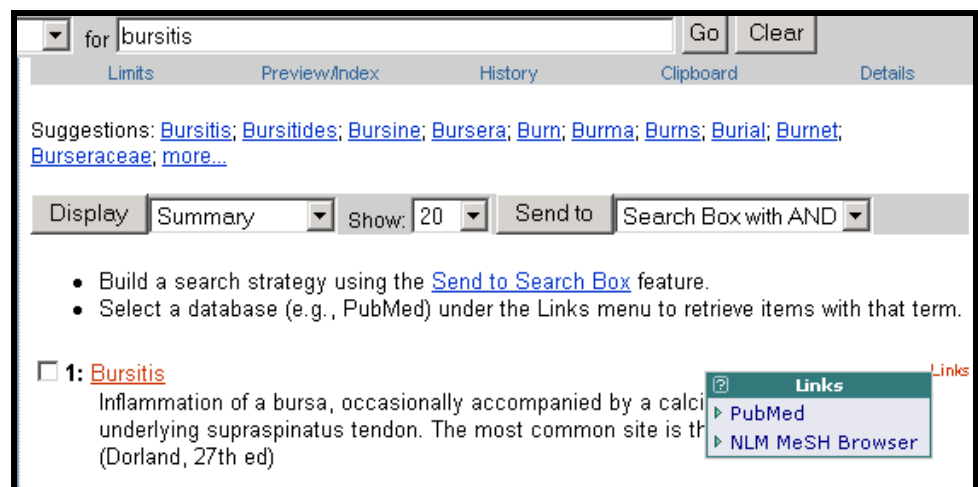
- PubMed displays results in the Summary format:

*Suggestions are MeSH or Entry terms generated by an algorithm that compares letter combinations*

*Links allows you to run a PubMed search or link to MeSH Browser.*

*Scope Note (meaning for this concept) is displayed.*

*Click on the term to see the Full display.*



- The **Full Display** provides more information about the term.

<p><i>Use the check boxes to select subheadings. Click on the <b>Subheadings</b> link to see a list of subheading definitions.</i></p> <p><i>Use these checkboxes to restrict to major topic or to not explode a term.</i></p> <p><i>Entry Terms (synonyms) are provided.</i></p> <p><i>MeSH hierarchy is displayed with searched term in boldface.</i></p>	<div style="text-align: right;"><a href="#">Links</a></div> <p><input type="checkbox"/> <b>1: Bursitis</b></p> <p>Inflammation of a bursa, occasionally accompanied by a calcific deposit in the underlying supraspinatus tendon. The most common site is the subdeltoid bursa. (Dorland, 27th ed)</p> <p><a href="#">Subheadings:</a></p> <p> <input type="checkbox"/> blood   <input type="checkbox"/> chemically induced   <input type="checkbox"/> classification   <input type="checkbox"/> complications   <input type="checkbox"/> diagnosis   <input type="checkbox"/> diet therapy   <input type="checkbox"/> drug therapy  <input type="checkbox"/> economics   <input type="checkbox"/> enzymology   <input type="checkbox"/> epidemiology   <input type="checkbox"/> etiology   <input type="checkbox"/> genetics   <input type="checkbox"/> immunology   <input type="checkbox"/> metabolism  <input type="checkbox"/> microbiology   <input type="checkbox"/> nursing   <input type="checkbox"/> pathology   <input type="checkbox"/> physiopathology   <input type="checkbox"/> prevention and control   <input type="checkbox"/> psychology  <input type="checkbox"/> radiography   <input type="checkbox"/> radionuclide imaging   <input type="checkbox"/> radiotherapy   <input type="checkbox"/> rehabilitation   <input type="checkbox"/> surgery   <input type="checkbox"/> therapy  <input type="checkbox"/> ultrasonography   <input type="checkbox"/> urine   <input type="checkbox"/> veterinary   <input type="checkbox"/> virology </p> <p> <input type="checkbox"/> Restrict Search to Major Topic headings only  <input type="checkbox"/> Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree). </p> <p>Entry Terms:</p> <ul style="list-style-type: none"> <li>▪ Bursitides</li> <li>▪ Adhesive Capsulitis</li> <li>▪ Adhesive Capsulitides</li> <li>▪ Capsulitides, Adhesive</li> <li>▪ Capsulitis, Adhesive</li> </ul> <p style="text-align: center;"> <a href="#">All MeSH Categories</a>  <a href="#">Diseases Category</a>  <a href="#">Musculoskeletal Diseases</a>  <a href="#">Joint Diseases</a>  <b>Bursitis</b>  <a href="#">Periarthritis</a> </p>
---	--

**Subheadings** that can be selected for searching with this term are listed (click on the **Subheadings** link for definitions).

You may **restrict the MeSH term to a major point** or choose **not to explode** the term.

Entry Terms (synonyms) are provided.

MeSH hierarchy is displayed with searched term in boldface.

## Other Resources

### Send to Search Box

- To specify a search for: *Citations about the diagnosis of bursitis*
  - Under Subheadings, click on the **diagnosis** checkbox from the Full display screen.
  - Next, select **Search Box with AND** from pull-down menu and click the **Send to** button.

The screenshot shows the MeSH browser interface. At the top, there are controls for 'Display' (set to 'Full'), 'Show' (set to '20'), and 'Send to' (set to 'Search Box with AND'). A dropdown menu is open under 'Send to', showing options: 'Text', 'File', 'Clipboard', 'Search Box with AND' (highlighted), 'Search Box with OR', and 'Search Box with NOT'. Below these controls, there are instructions: 'If making selections (e.g., Subheadings, etc.), use PubMed records with those specifications.', 'Select PubMed under the Links menu to retrieve a', and 'Select [NLM MeSH Browser](#) under the Links menu'. The main content area shows '1: Bursitis' with a description: 'Inflammation of a bursa, occasionally accompanied by a calcific deposit in the underlying supraspinatus tendon. The most common site is the subdeltoid bursa. (Dorland, 27th ed)'. Below this is a 'Subheadings:' section with a list of checkboxes: 'blood', 'chemically induced', 'classification', 'complications', 'diagnosis' (checked), 'diet therapy', 'drug therapy', 'economics', 'enzymology', 'epidemiology', 'etiology', 'genetics', 'immunology', 'metabolism', 'microbiology', 'nursing', 'pathology', and 'physiopathology'. An arrow points to the 'diagnosis' checkbox. On the right side, there is a 'Links' section.

The term with any subheadings will appear in the Search Box:

The screenshot shows a search box with the text '"Bursitis/diagnosis" [MeSH]'. Below the search box are two buttons: 'Search PubMed' and 'Clear'.

Now, let's adjust our search to articles discussing the *diagnosis of bursitis in the knee joint*.

- Enter **knee joint** in the query box and click **Go**.

Searching on the next term.

Here's the strategy being built.

The screenshot shows the MeSH browser interface. At the top, there is a navigation bar with links: 'Nucleotide', 'Protein', 'Genome', 'Structure', 'PMC', and 'Taxonomy'. Below this is a search box with the text 'for knee joint'. To the right of the search box are two buttons: 'Go' and 'Clear'. Below the search box are four tabs: 'Limits', 'Preview/Index', 'History', and 'Clipboard'. Below the tabs is a search box with the text '"Bursitis/diagnosis" [MeSH]'. Below the search box are two buttons: 'Search PubMed' and 'Clear'. At the bottom, there are controls for 'Display' (set to 'Full'), 'Show' (set to '20'), and 'Send to' (set to 'Search Box with AND').

## Other Resources

- This brings you to the Summary display for **Knee Joint**. Click on the **Knee Joint** term link to see the Full display for this term.

Now, let's restrict to citations where the *major focus of the article is knee joints* and then add this term to the strategy we are building.

To do this, select **Search Box with AND** from the pull-down menu and click the **Send** to button.

"Bursitis/diagnosis"[MeSH]

Search PubMed Clear

Display Full Show: 20 Send to Search Box with AND

- If making selections (e.g., Subheadings, etc.), use the [Send to Search Box](#) feature to see PubMed records with those specifications.
- Select PubMed under the Links menu to retrieve all records for the MeSH Term.
- Select [NLM MeSH Browser](#) under the Links menu for additional information.

☒ **1: Knee Joint** [Links](#)

Year introduced: 1965

Subheadings:

☐ abnormalities ☐ analysis ☐ anatomy and histology ☐ blood supply ☐ chemistry  
☐ cytology ☐ drug effects ☐ embryology ☐ enzymology ☐ growth and development  
☐ immunology ☐ innervation ☐ metabolism ☐ microbiology ☐ parasitology  
☐ pathology ☐ physiology ☐ physiopathology ☐ radiation effects ☐ radiography  
☐ radionuclide imaging ☐ secretion ☐ surgery ☐ transplantation ☐ ultrasonography  
☐ ultrastructure ☐ virology

☒ Restrict Search to Major Topic headings only  
☐ Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

Click here to  
restrict to a  
Major Topic.

- Now, the search is built and is ready to be run in PubMed. Click the **Search PubMed** button below the Search box:

"Bursitis/diagnosis"[MeSH] AND "Knee Joint"[MAJR]

Search PubMed Clear

## Other Resources

### Clinical Queries

- Available on PubMed's sidebar
  - There are 3 search filters available from this page:
    - Search by Clinical Study Category
    - Find Systematic Reviews
    - Medical Genetics Searches
- 

#### Search by Clinical Study Category

This specialized search query is intended for clinicians and has built-in search "filters" based on research done by R. Brian Haynes, M.D., Ph.D. at McMaster University in Canada.

Five study categories or filters are provided:

- etiology
- diagnosis
- therapy
- prognosis
- clinical prediction guidelines

Two emphasis categories or filters are provided:

- narrow, specific search -- will get more precise, relevant citations but less retrieval
- broad, sensitive search -- includes relevant citations but probably some less relevant; will get more retrieval

**Example:** Find citations on having a rash with a fever using the defaults of therapy and narrow, specific search.

#### Search by Clinical Study Category

This search finds citations that correspond to a specific clinical study category. The search may be either broad and sensitive or narrow and specific. The search filters are based on the work of [Haynes RB et al.](#) See the [filter table](#) for details.

Search

Category	Scope
<input type="radio"/> etiology	<input checked="" type="radio"/> narrow, specific search
<input type="radio"/> diagnosis	<input type="radio"/> broad, sensitive search
<input checked="" type="radio"/> therapy	
<input type="radio"/> prognosis	
<input type="radio"/> clinical prediction guides	

#### Find Systematic Reviews

## Other Resources

- This feature is provided to help clinicians locate systematic reviews and similar articles.
- It retrieves systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines. Citations from journals specializing in clinical review studies are also included.

**Example:** *Find Systematic Reviews on inhalation therapy for pneumonia.*

Enter search terms  
in the query box.

**Find Systematic Reviews** ↑

For your topic(s) of interest, this search finds citations for systematic reviews, meta-analyses, reviews of clinical trials, evidence-based medicine, consensus development conferences, and guidelines.

For more information, see [Help](#). See also [related sources](#) for systematic review searching.

Search



This subset can be combined directly with other search terms using AND systematic [sb]. For example, lyme disease AND systematic [sb].]

## Medical Genetics Searches

- Finds citations related to various topics in medical genetics
- Default is to **All** topics. Click on All check box to deselect; then click on topic(s) of interest.
- Developed in conjunction with the staff of GeneReviews: Genetic Disease Online Reviews at GeneTests, University of Washington, Seattle.

**Example:** *Find citations about sickle cell anemia using the Medical Genetics Searches categories : Genetic Counseling ; Genetic Testing*

Enter search terms in the query box.	<div><b>Medical Genetics Searches</b> ↑</div> <p>This search finds citations and abstracts related to various topics in medical genetics. See the <a href="#">filter table</a> for details.</p> <p>Search <input type="text" value="sickle cell anemia"/> <input type="button" value="Go"/></p> <p style="text-align: center;"><u>Category</u></p> <p><input type="checkbox"/> All</p> <p><input type="checkbox"/> Diagnosis</p> <p><input type="checkbox"/> Differential Diagnosis</p> <p><input type="checkbox"/> Clinical Description</p> <p><input type="checkbox"/> Therapy</p> <p><input checked="" type="checkbox"/> Genetic Counseling</p> <p><input type="checkbox"/> Molecular Genetics</p> <p><input checked="" type="checkbox"/> Genetic Testing</p>	Select topics of interest.

## Special Queries – Health Services Research (HSR) Queries

### Why?

- Provides a search interface to find PubMed citations relating to **health care quality** and **health care costs**

### Where?

- Click on **Special Queries** from PubMed's sidebar
- Click on **Health Services Research (HSR) Queries** from the Special Queries page

Click on **"definitions"** to display helpful explanations of the HSR categories.

Enter search terms here.

Choose appropriate category and scope.

### PubMed Health Services Research (HSR) Queries

This page provides specialized PubMed searches on healthcare quality and costs.

After running one of these searches, you may further refine your results using PubMed's [Limits](#) feature.

Results of searches on this page are limited to specific health services research areas (see [definitions](#)). For comprehensive searches, use [PubMed](#) directly.

Additional PubMed search filters are available, including a filter for [Systematic Reviews](#).

### Search by HSR Study Category

This search finds citations that correspond to a specific health services research study category. The search may be either broad and sensitive or narrow and specific. The search filters are based on the work of [Haynes RB et al](#). See the [filter table](#) for details.

Search

Category	Scope
<input checked="" type="radio"/> Appropriateness	<input checked="" type="radio"/> Broad, sensitive search
<input type="radio"/> Process assessment	<input type="radio"/> Narrow, specific search
<input type="radio"/> Outcomes assessment	
<input type="radio"/> Costs	
<input type="radio"/> Economics	
<input type="radio"/> Qualitative research	

## My NCBI



### My NCBI Features

- Saved Searches: save search strategies to get updates - including automatic e-mailed updates.
- Filters: Group your retrieval by topics of interest to you

### Getting to My NCBI

- PubMed's banner will display links to My NCBI.
- The **My NCBI** link goes to your list of saved searches.
- **Sign In** links to the Sign In page.
- **Register** links to the My NCBI registration page.



### Registering for My NCBI

- To use My NCBI you need to register for an account.
- **Sign In: Session-Only or Automatic**

- The check box, "Keep me signed in unless I sign out" is un-checked as the default.
- This means that My NCBI features will be available **for your current session**.
- Check the box if you want My NCBI features to be available from that computer without signing in again. This is done by use of a **permanent cookie** which remains on the computer.
- Click **About automatic sign in** for more information about this feature.

A screenshot of the "My NCBI: Sign In" web form. It has a blue header with the title "My NCBI: Sign In". Below the header, it says "Sign in here or [register for an account](#)". There are two input fields: "User Name" and "Password". Below the "Password" field, there are two lines of text: "three to ten characters" and "six to eight characters". Below these, there is a link "[I forgot my password](#)". To the right of the "Password" field is a "Sign In" button. At the bottom, there is a checkbox labeled "Keep me signed in unless I sign out". Below the checkbox, there are two lines of text: "Leave unchecked on public computers" and "[About automatic sign in](#)".

## Other Resources

### Important Facts about the E-mail for My NCBI Account

- Each My NCBI account can have **only one** e-mail address that will be used for all automatic e-mail updates saved in that account.
- If, at a later time, you change the e-mail address for your account, the new e-mail address will be used for **all** automatic updates following confirmation (see below).
- To change the e-mail address on an account, go to **User Preferences** on the My NCBI sidebar.



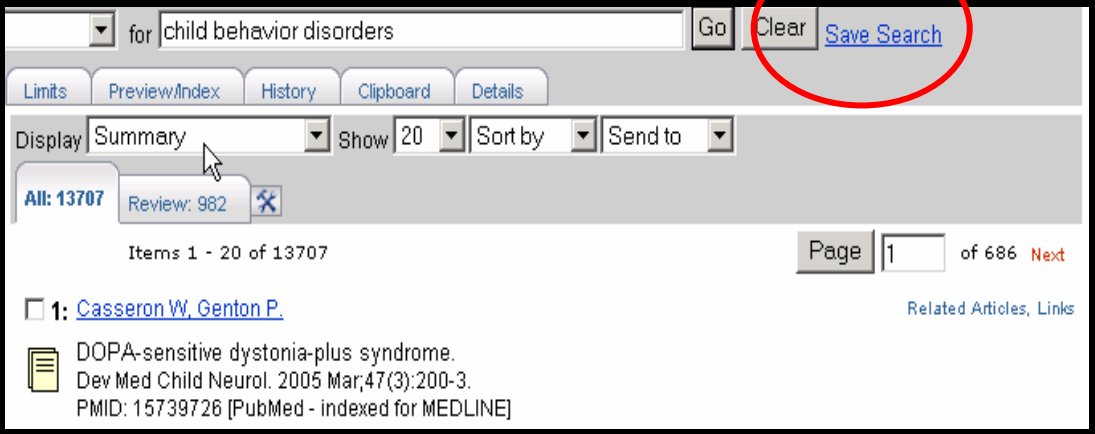
The address for PubMed's Send to E-mail feature *can* be changed for individual e-mails on the Send to E-mail page without affecting the e-mail address used for the My NCBI account.

### The Confirmation E-mail

- The first time an automatic e-mail update is created for an account, or if the e-mail is changed in User Preferences, a confirmation e-mail will be sent to that address.
- No automatic updates will be sent to an address until it has been confirmed.

### • Saving Searches

- Run your PubMed search.
- From the Results page, click on the **Save Search** link to the right of the query box.



- Click here.



- PubMed uses the search as it is stored in the History, so it is important to run a search in order for it to appear in the History.

## Other Resources

- PubMed will open a separate window in your browser to start the saving process. (If you are not already signed into My NCBI, you will be prompted to do so.)

<ul style="list-style-type: none"><li>•</li><li>•</li><li>•</li><li>•</li><li>• You can edit the name of the search.</li><li>•</li><li>• This name will be part of the Subject line of automatic e-mail updates.</li></ul>	<div><div><h3>Save Search</h3><p>Your search in PubMed child behavior disorders</p><p>Enter a name for your search: <input type="text" value="child behavior disorders"/></p><p>Would you like to receive e-mail updates of new search results? <input checked="" type="radio"/> No <input type="radio"/> Yes</p><p><input type="button" value="OK"/> <input type="button" value="Cancel"/></p></div></div>
--	---

- Next, indicate whether or not you want to have the updates automatically e-mailed.
- If you leave the setting as No, the search is saved and you can update it at your convenience.
- If you select the Yes button, the window will extend to display additional options for customizing the update:

## Other Resources

**Save Search**

*Your search in PubMed*  
child behavior disorders

Enter a name for your search:

Would you like to receive e-mail updates of new search results?  
☐ No  
☒ Yes

E-mail to: ["SPAM" filtering software notice](#)

How often?  
☒ The   of each month  
☐ Every   
☐ Every day

Format:  as

Maximum number of items to send

Send e-mail even when there are no new results ☒ Yes

Additional text (optional)

### Setting up automatic updating

Searches saved for automatic updating require that additional details be supplied.

- If the e-mail box is blank, enter an **e-mail address** for the account. *All* automatic updates will be sent to that address following confirmation
- Select **How often** you want to get updates - monthly, weekly, or daily.
- Select the **format** (Summary, Abstract, etc.), and either an HTML or text e-mail.
- Select the **maximum number of items to be sent** with each update. Don't worry about picking a number that is too low. You can use a link in the e-mail that takes you to the total update results in PubMed.
- If you want to know when an update retrieved no citations, select, **Send e-mail when there are no new results**.
- The **Additional text** box will default to the search name. You can replace this text, keeping in mind that this text will display on each e-mail update as "Sender's message" and the strategy is also displayed in the e-mail message. Many users will prefer not to include additional text.

## Other Resources

*Click on the word, "**here**" to view the complete results. For this example, to see all 10 citations.*

This message contains My NCBI what's new results from the National Center for Biotechnology Information (NCBI) at the U.S. National Library of Medicine (NLM).  
Do not reply directly to this message.

**Sender's message:** Search: child behavior disorders

Sent on Saturday, 2005 Feb 12

Search **child behavior disorders**

Click [here](#) to view complete results in pubmed. (Results may change over time.)

To unsubscribe from these e-mail updates click [here](#).

### Entrez pubmed Results

Items 1 - 5 of 10

☐ **1:** [Stein A, Krebs G, Richter L, Tomkins A, Rochat T, Bennish ML](#) [Related Articles](#), [Books](#), [LinkOut](#)



Babies of a pandemic.

Arch Dis Child. 2005 Feb;90(2):116-8. No abstract available.

PMID: 15665160 [PubMed - indexed for MEDLINE]

☐ **2:** [Dery M, Toupin J, Pauze R, Verlaan P](#) [Related Articles](#), [Books](#), [LinkOut](#)



Frequency of mental health disorders in a sample of elementary school students receiving special educational services for behavioural difficulties.

Can J Psychiatry. 2004 Nov;49(11):769-75.

PMID: 15633855 [PubMed - indexed for MEDLINE]

## Partial e-mail update results

## Other Resources

### Manually Updating Searches

- To manually update a search, go to your saved searches in My NCBI.
- Check the box to the left of the search to be updated and click **What's New for Selected** at the bottom of the page.
- My NCBI will indicate if there are any new citations retrieved by the strategy since your last update.
- If you link to the results, i.e., complete the update, your saved search list will reflect the date and time of the update.

### Additional Functions available from My Saved Searches page

*In the **Details** column click on the frequency (Daily, Weekly, Monthly) to go to the Search Details page where you can make changes.*

*Hold your cursor over the data in the **Last Updated** column to show the date the next e-mail update will be sent, or in the case of No Schedule, you will see the date you last manually generated new citations.*

*Saved searches can be run to retrieve total results, i.e., not limited to new citations. Click on the name of the search. (This will not affect future updates.)*

Search PubMed	Last Updated	Details
<input type="checkbox"/> <a href="#">sunscreen hypersensitivity</a>	today	<a href="#">Daily</a>
<input type="checkbox"/> <a href="#">vitamin k diet</a>	today	<a href="#">Monthly</a>
<input type="checkbox"/> <a href="#">chronic fatigue syndrome</a>	today	<a href="#">Weekly</a>
<input type="checkbox"/> <a href="#">Arthritis Pain</a>	2 months ago	<a href="#">No Schedule</a>

**What's New for Selected** **Delete Selected**

### • **Modifying a Strategy: Save a New One and Delete the Old**

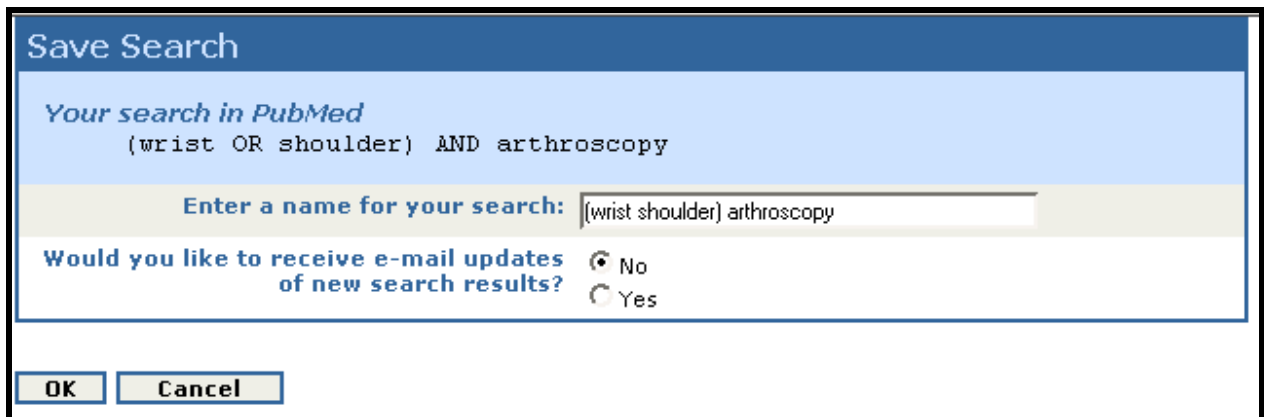
- Saved search strategies cannot be edited. To modify a strategy, re-save it with your changes.
- To delete a search, select the search using the check box and click on the **Delete Selected** button at the bottom of the page.

### • **Changing the E-mail Address for an Account**

- User Preferences is accessible via a link on the My NCBI sidebar. You can change the e-mail address for your My NCBI account here.
- Keep in mind, anytime you change the e-mail for an account, all automatic updates will be sent to that address following confirmation.

### Search Statement Numbers in Saved Searches

- My NCBI allows you to save searches with search statement numbers (#2 OR #3) AND #1.
- Be aware that the default search name does not include any Boolean operators and search tags, if entered.
- Example: (#1 OR #2) AND #4
- #1: wrist
- #2: shoulder
- #4: arthroscopy



**Save Search**

*Your search in PubMed*  
(wrist OR shoulder) AND arthroscopy

**Enter a name for your search:** (wrist shoulder) arthroscopy

**Would you like to receive e-mail updates of new search results?** ☒ No ☐ Yes

**OK Cancel**

- This name does not affect the strategy, so it is advisable to edit it to something short, yet meaningful.
- Be sure to run your search before saving it, in order for it to appear in the History and be successfully saved.

### About the Updates

- The update strategies used for My NCBI are detailed in PubMed's Help.
- New or modified searches can be generated no sooner than the next day. For example, this morning, you changed the frequency for an update from Monthly to Daily. The first update will be sent tomorrow.

## Other Resources

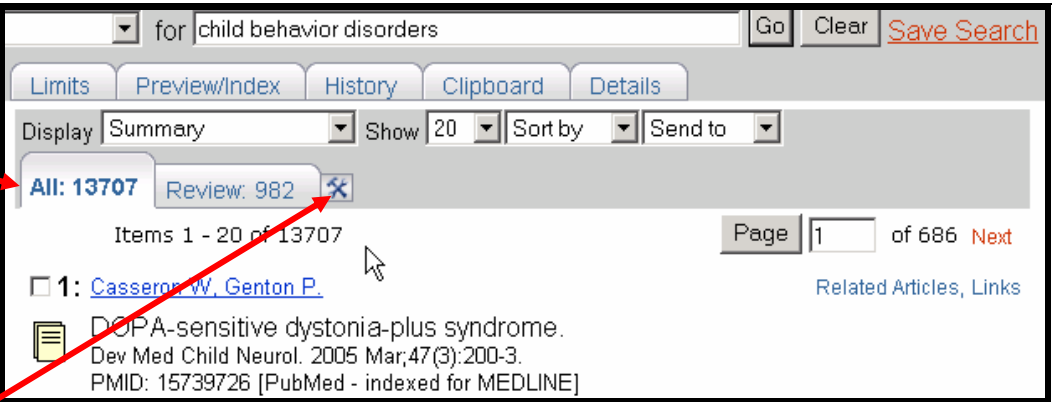
### Filters

- My NCBI includes a Filters feature which groups search results by areas of interest.
- You can have up to **five** active filters using My NCBI.

### The Tabs

- “All” tab shows the total retrieval for the search. “Review” tab shows the total retrieval for review articles.

*The All tab shows the total retrieval for the search.*  
*The Review tab shows the total retrieval for review articles.*  
*To the right of the “Review” tab, the hammer and wrench icon links you to My NCBI where you can add or modify your filter choices.*



for child behavior disorders Go Clear Save Search

Limits Preview/Index History Clipboard Details

Display Summary Show 20 Sort by Send to

All: 13707 Review: 982

Items 1 - 20 of 13707 Page 1 of 686 Next

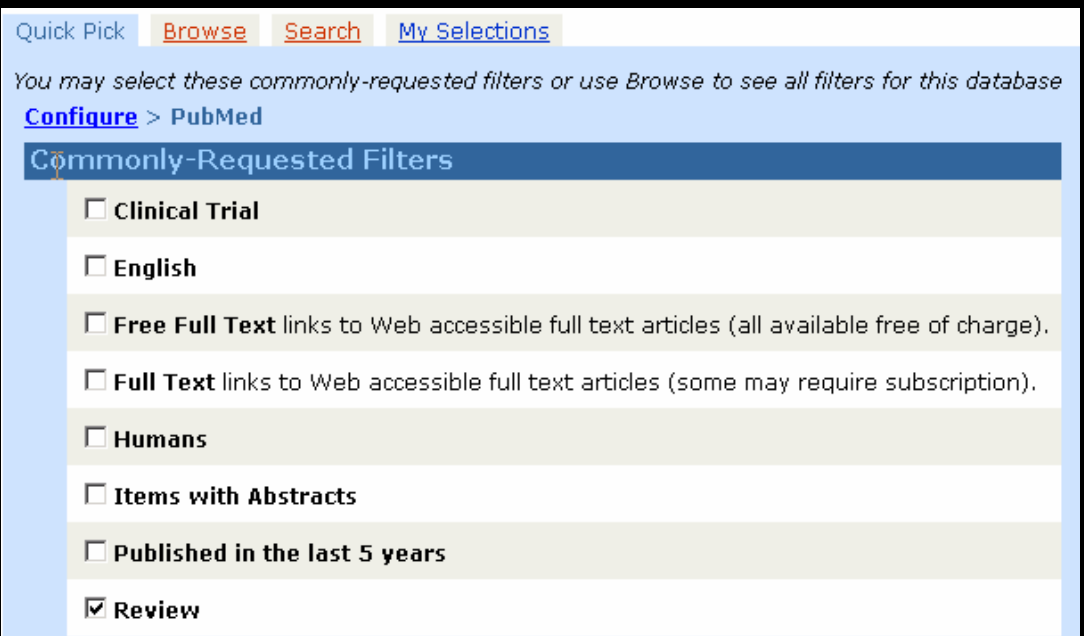
1: Casserone W, Genton P. DOPA-sensitive dystonia-plus syndrome. Dev Med Child Neurol. 2005 Mar;47(3):200-3. PMID: 15739726 [PubMed - indexed for MEDLINE]

Related Articles, Links

### Adding Filters

- Use the  icon to link to the **Quick Pick** list of commonly-requested filters:

*Click in the checkboxes to select or deselect filters.*



Quick Pick Browse Search My Selections

You may select these commonly-requested filters or use Browse to see all filters for this database

Configure > PubMed

Commonly-Requested Filters

- ☐ Clinical Trial
- ☐ English
- ☐ Free Full Text links to Web accessible full text articles (all available free of charge).
- ☐ Full Text links to Web accessible full text articles (some may require subscription).
- ☐ Humans
- ☐ Items with Abstracts
- ☐ Published in the last 5 years
- ☒ Review

### Browse

- Click on Browse to see additional options for PubMed filters.
- On the Browse page there are three categories:

LinkOut  
Links  
Properties

- Users interested in **subject-related filters** for their searches should look at **Properties**.

There are over 70 filter options under **Properties**.

[Quick Pick](#) [Browse](#) [Search](#) [My Selections](#)

Browse filters by category

[Configure](#) > [PubMed](#)

[LinkOut](#) These filters will group records with links to resources provided by outside organizations.

[Education](#), [Literature](#), [Medical Resources](#), [Miscellaneous](#), [Molecular Biology Databases](#), [Research Materials](#), [Researchers](#)

[Links](#) These filters group records with links to other Entrez databases.

[Properties](#) These filters group records by areas of interest.

[Age Groups](#), [Clinical Queries](#), [Entrez \(Entered\) Date](#), [Gender](#), [Health Services Research Queries](#), [Humans or Animals](#), [Languages](#), [Other](#), [Publication Date](#), [Publication Types](#), [Subsets](#)

Under Properties, use the links to see the available filters for each sub-category. Here's the one for Publication Types:

Use the link for the desired filter to go to a page where you can select that filter.

[Quick Pick](#) [Browse](#) [Search](#) [My Selections](#)

Browse filters by category

[Configure](#) > [PubMed](#) > [Properties](#) > [Publication Types](#)

Filters in category *Publication Types*

[Clinical Trial](#)

[Meta-analysis](#)

[Practice Guideline](#)

[Randomized Controlled Trial](#)

[Review](#)

## Other Resources

Click in the checkbox to select the filter.

[Quick Pick](#) [Browse](#) [Search](#) [My Selections](#)

Browse filters by category

[Configure](#) > [PubMed](#) > [Properties](#) > [Publication Types](#) > Randomized Controlled Trial

Randomized Controlled Trial

**Selections**

☒ Add a result tab for all items that match this filter.

## LinkOut Filters

- Filters in this category group results by full text providers, libraries, and other outside resources.

### Adding your library's holdings as a filter

- From the LinkOut filters page:

Click on **Libraries** link.

[Quick Pick](#) [Browse](#) [Search](#) [My Selections](#)

Browse filters by category

[Configure](#) > [PubMed](#) > [LinkOut](#) > Literature

**Sub-categories of Literature**

[Aggregators](#) Services that provide a single point of online access to multiple full-text publications cited in Entrez records, aggregate online access to the publications of multiple publishers and/or providers.

[Author Profiles](#) Resources offering biographical information and /or research interest of authors of a PubMed citation.

[Books](#) Links to online books which are directly relevant to specific Entrez records.

[Commentaries/Discussion](#) Links to commentaries or discussion to extend/continue the topic discussed in the article cited in a PubMed citation.

[Document Delivery](#) Links to vendors which deliver electronic or print copies of documents to users offline.

[Images](#) Links to online images from the Entrez records that they are relevant to or referenced by.

[Individual Online Article](#) Links from Entrez records to individual online copies of the publications that they reference.

[Libraries](#) Links to the online collection or information about the print collection of libraries for their users.

[Publishers/Providers](#) Links to online publications offered by publishers or other providers that submit their PubMed citation and abstract data electronically.

[Supplemental Materials](#) Links to additional data which help to understand the article cited in a PubMed citation, including data-set from experiments/studies, accessory graphics, images, sound and multimedia files related to the article.

This will bring up a page with all of the LinkOut-participating libraries.

- Use your browser's Find feature to locate your library.
- Click on the desired library link.
- Then click on the checkboxes to add a result tab and/or display the library's icon:

Notice the use of "breadcrumbs" on the Filters pages.

Each breadcrumb for a higher level is a link to that page.

Click in the checkboxes to add these selections.



- Results tabs for LinkOut providers display the LinkOut user name.
- Place your cursor over this ID to see the name of the provider.
- Users who connect to PubMed with a URL that includes a library's holdings parameter will continue to see their library icon even if they do not select their library in My NCBI. Users should select their library filter if they want to see a filter tab for their library in the search results.


### My Selections

- Click on My Selections at any time to check on the filters selected:

## Other Resources

### Using the Filter Tabs



- Click on a filter tab to go to the citations for a particular filter. Select any display format you wish.
- When you click on the filter name (tab) to see the results for a filter, a tack symbol will appear in the tab:

Clicking on the  icon "tacks" that filter onto the search query.

for child behavior disorders   [Save Search](#)


[Limits](#) [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

Display:  Show:  Sort:  Send to:

All: 13639 English: 11300 **Randomized Controlled Trial: 235 ** ucalib: 1258 

Items 1 - 20  1 of 12 [Next](#)

☐ 1: [Koomen I, Grobbee DE, Roord JJ, Jennekens-Schinkel A, van der Lei HD, Kraak MA, van Furth AM.](#) [Related Articles](#), [Links](#)

 Prediction of academic and behavioural limitations in school-age survivors of bacterial meningitis.  
Acta Paediatr. 2004 Oct;93(10):1378-85.  
PMID: 15499961 [PubMed - indexed for MEDLINE]



- Filters added this way will display in the query box with the [Filter] tag.
- If you want to save this search, click on Save Search.
- Many filter topics can be added to the search via the Limits page. Either way will yield the same results.

## User Preferences

- Available from My NCBI sidebar
- Change the display format for the Links menu on your search results screen.
- Save an e-mail address for Send to E-mail as well as automatic e-mail updates.
- Choose to highlight PubMed search words in retrieval when you are signed into My NCBI.

### Activating Highlighting Feature:

<p><i>Highlighting default is set to <b>Off</b>.</i></p> <p><i>Selecting a color and clicking <b>OK</b> activates this feature.</i></p>	<div><h3>User Preferences</h3><ul style="list-style-type: none"><li>• Change the display format for the Links menu on your search results screen.</li><li>• Save an e-mail address for Send to E-mail as well as automatic e-mail updates.</li><li>• Auto e-mail updates go to a single address. Enter one address for this account.</li><li>• Highlight PubMed search words in your retrieval, or not.</li></ul><p>Links display: JavaScript Menu (default) ▼</p><p>E-mail address: e-mail_address@mail.com <a href="#">Notice to My NCBI users using e-mail filtering "SPAM" software</a></p><p>Highlighting: <input type="radio"/> Off <input type="radio"/> Yellow <input type="radio"/> Green <input checked="" type="radio"/> Plum <input type="radio"/> Aqua</p><p>OK Cancel</p></div>
---	---

## Other Resources

### Citation Matcher

- The **Single Citation Matcher** allows you to find a citation using information such as a journal name, volume, issue, page number, publication date, and title words.
  - The **Single Citation Matcher** can also be used to get a “Table of Contents” listing of items from a particular issue of a journal in PubMed.
  - The **Batch Citation Matcher** allows you to retrieve the PubMed IDs for many articles all at once. The feature requires that you enter the bibliographic information (journal, volume, page, etc.) in a specific format. Note: The Batch Citation Matcher is primarily a tool used by publishers to check their electronic submissions and links.
- **How to Get There:**
  - Click on **Single Citation Matcher** on the PubMed sidebar.
  - Enter as much information as you know, only one field is required, and click on the **Search** button.
- **Example:** *Biometals*, 2001, one author is Shuhama

**Citation Matcher for Single Articles**

leotide Protein Genome Structure PopSet Taxonomy

Enter information about the article you wish to find.

Journal:

Date:

Volume:  Issue:  First page:

Author's last name and initials (e.g., Smith BJ)

Title words:


### Result:

for

Limits Preview/Index History Clipboard Details

Display  Show:  Sort  Send to

☐ 1: [Brandao-Neto J, Silva CA, Shuhama T, Silva JA, Oba L.](#) [Related Articles, Links](#)

 Renal handling of zinc in insulin-dependent diabetes mellitus patients.  
Biometals. 2001 Mar;14(1):75-80.  
PMID: 11368278 [PubMed - indexed for MEDLINE]



If you know four or more significant words from the title, that is often all that is needed to locate a reference.

- **Example:** You are looking for the citation for an article entitled, "Where does it hurt"? Pain localization in osteoarthritis in the knee."
  - Enter significant words from the title and click on the **Search** button.

## Citation Matcher for Single Articles

otide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
-------	---------	--------	-----------	--------	----------	------

Enter information about the article you wish to find.

Journal:

Date:

Volume:  Issue:  First page:

Author's last name and initials (e.g., Smith BJ)

Title words:

localization pain knee osteoarthritis

➤ **Result:**

for

localization pain knee osteoarthritis

Go

Clear

Limits

Preview/Index

History

Clipboard

Details

Display

Summary

Show: 20


Sort

Send to

Text

☐ 1: [Creamer P, Lethbridge-Cejku M, Hochberg MC.](#)

Related Articles, Links



Where does it hurt? Pain localization in osteoarthritis of the knee.  
Osteoarthritis Cartilage. 1998 Sep;6(5):318-23.  
PMID: 10197166 [PubMed - indexed for MEDLINE]

## Other Resources

### Journals Database

- The PubMed Journals Database allows you to search for citations in PubMed from a journal of your choice. The database includes the journals in all Entrez databases, e.g. PubMed, Nucleotides, etc. You can locate a journal using:
  - **Journal title**, the **ISSN** (International Standard Serial Number), the **MEDLINE title abbreviation**, the **NLM ID** (ID number for LOCATORplus) or the **ISO** (International Organization for Standardization).
- Click on the **Journals Database** link from the PubMed sidebar:
- **Search the Journals Database:**
  - Enter the journal information and click on the **Go** button.
  - **Example:** Enter *cardiac* for Advances in Cardiac Surgery, see results below:

The screenshot shows the PubMed Journals Database search interface. At the top, there is a search bar with the text 'for cardiac' and buttons for 'Go' and 'Clear'. Below the search bar are tabs for 'Limits', 'Preview/Index', 'History', 'Clipboard', and 'Details'. A section titled 'Suggestions:' lists several journal titles with blue links: 'Can j cardiol', 'Cardiology', 'Complicated cardiac patient', 'J cardiol', 'Cardiologia', 'Journal of cardiac surgery', 'Clin cardiol', 'Cardiol clin', 'Journal of cardiac failure', 'Cardiol rev', and 'more...'. Below the suggestions is a control bar with 'Display' set to 'Summary', 'Show' set to '20', and 'Send to' set to 'Text'. It also indicates 'Items 1-14 of 14' and 'One page.'. The main results area shows a list of journals. The first entry is '1: Advances in cardiac surgery.' with a checkbox to its left. To the right of this entry is a red link labeled 'Links'. Below the journal title, the following information is displayed: 'pISSN: 0889-5074', 'MEDLINE Abbr: Adv Card Surg', and 'NLM ID: 9007186'.

- Click on a journal selection under **Suggestions** to go directly to a specific journal record, or scroll down through the records listed in alphabetical order.
- Click on the journal title to see its full record.

- The Links menu to the right of the title includes links to the Entrez databases in which citations to the journal are found. Select a database under the Links menu to retrieve records for that journal. You can also send the journal title to the Single Citation Matcher.

Display: Summary Show: 20 Send to: Text One page

Items 1-16 of 16

- Use the Links menu to retrieve records for that journal from a database (e.g. PubMed) or send the journal to the [Single Citation Matcher](#)
- Build a list of journals using the [Send to Search Box feature](#)
- Click on the NLM ID to display journal information from [Locatorplus](#).

☒ 1: [Advances in cardiac surgery](#)  
 pISSN: 0889-5074  
 MEDLINE Abbr: Adv Card Surg  
 NLM ID: [9007186](#)

**Links**

- PubMed
- Single Citation Matcher

- You can search more than one journal at a time. Choose journals from the database and add them to the query box by clicking on **Send to** after choosing **Search Box with OR** from the pull-down menu. Click on **Search PubMed**. This multiple journal search will, like all PubMed searches, become part of your History. You can then combine that History number with additional terms.

"Adv Card Surg"[Journal: \_\_jrid2596] OR "Heart Cent Bull (Roslyn)"[Journal: \_\_jrid31316]

Search PubMed Clear

Suggestions: [Caring](#); [Caritas](#); [Canadian](#); [Cardiology](#); [Cancer](#); [Cantium](#); [Casana](#); [Cancro](#); [Castanea](#); [Cat](#)

Display: Summary Show: 20 Send to: Search Box with OR

Items 1-16 of 16

- Use the Links menu to retrieve records for that journal from a database (e.g. PubMed) or send the journal to the [Single Citation Matcher](#)
- Build a list of journals using the [Send to Search Box feature](#)
- Click on the NLM ID to display journal information from [Locatorplus](#).

☒ 1: [Advances in cardiac surgery](#)  
 pISSN: 0889-5074  
 MEDLINE Abbr: Adv Card Surg

### Journals With Links to Publisher Web Sites:

- On the Journals Database screen, click on journals with **links to full-text web sites** for a list of full-text journals available on the Web to which PubMed is currently linked.
  - Some journals may require that you register, subscribe, or pay a fee in order to view the full-text of an article.
  - Contact the journal publishers as noted on their individual Web sites for specific access information.

## Other Resources

### Practice Exercises

Try using the PubMed MeSH Database for searches that require the use of MeSH headings.

1. Find articles discussing the diagnosis of prostate cancer as the main focus of the article. Then limit to articles entered into PubMed in the last 2 years.
2. Find citations to articles discussing the surgical or drug treatment of osteosarcoma in children. Limit to studies involving the drug, cisplatin. Also, limit to English language articles.
3. Find references discussing the economics of community-acquired pneumonia.

Try to find the references using the following information and PubMed's Single Citation Matcher:

4. *Arthritis Rheum*, 1982, page 1271-7
5. R. G. Johnson, *Journal of Thoracic and Cardiovascular Surgery*, Jan 1998, Page 148

## Suggested Answers

- Find articles discussing the diagnosis of prostate cancer as the main focus of the article. Then limit to articles entered into PubMed in the last 2 years.

- MeSH Database Summary display:

for prostate cancer [Go] [Clear]

Limits Preview/Index History Clipboard Details

[Search PubMed] [Clear]

Suggestions: [Prostate cancer](#); [Prostate cancers](#); [Prostatic cancer](#); [Cancer, prostate](#); [Cancers, prostate](#); [Cancer of prostate](#); [Prostatic cancers](#); [Cancer, prostatic](#); [Cancers, prostatic](#); [Prostate](#); [more...](#)

Display Summary Show: 20 Send to Search Box with AND

- Build a search strategy using the [Send to Search Box](#) feature.
- Select a database (e.g., PubMed) under the Links menu to retrieve items with that term.

☐ 1: [Prostatic Neoplasms](#) Links  
Tumors or cancer of the prostate.

Click term to reach  
Full display.

Choosing diagnosis subheading and restricting to major topic:

Once  
specifications  
are checked,  
click on **Search  
Box with AND**  
and click on  
the **Send to**  
button.

Display Full Show: 20 Send to Search Box with AND

- If making selections (e.g., Subheadings, etc.), use the [Send to Search Box](#) feature to see PubMed records with those specifications.
- Select PubMed under the Links menu to retrieve all records for the MeSH Term.
- Select [NLM MeSH Browser](#) under the Links menu for additional information.

☐ 1: **Prostatic Neoplasms** Links  
Tumors or cancer of the prostate.

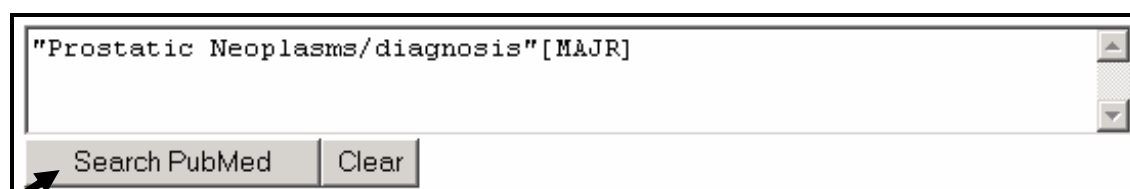
Subheadings:

☐ analysis ☐ blood ☐ blood supply ☐ cerebrospinal fluid ☐ chemically induced ☐ chemistry  
☐ classification ☐ complications ☐ congenital ☒ diagnosis ☐ diet therapy ☐ drug therapy  
☐ economics ☐ embryology ☐ enzymology ☐ epidemiology ☐ ethnology ☐ etiology ☐ genetics  
☐ history ☐ immunology ☐ metabolism ☐ microbiology ☐ mortality ☐ nursing ☐ parasitology  
☐ pathology ☐ physiopathology ☐ prevention and control ☐ psychology ☐ radiography  
☐ radionuclide imaging ☐ radiotherapy ☐ rehabilitation ☐ secondary ☐ secretion ☐ surgery  
☐ therapy ☐ transmission ☐ ultrasonography ☐ ultrastructure ☐ urine ☐ veterinary ☐ virology

☒ Restrict Search to Major Topic headings only  
☐ Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

To run search strategy in PubMed, click on the **Search PubMed** button below the Search box:

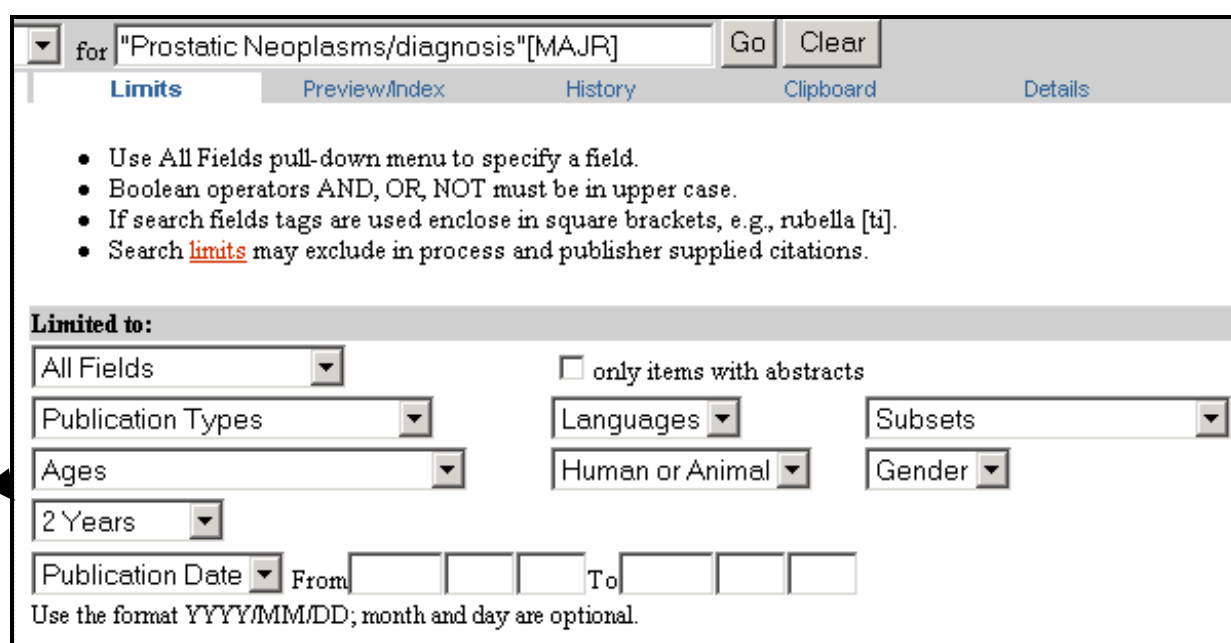
## Other Resources



"Prostatic Neoplasms/diagnosis"[MAJR]

Search PubMed Clear

Now, restrict to those citations entered into the database in the last 2 years using the Limits screen.



for "Prostatic Neoplasms/diagnosis"[MAJR] Go Clear

**Limits** Preview/Index History Clipboard Details

- Use All Fields pull-down menu to specify a field.
- Boolean operators AND, OR, NOT must be in upper case.
- If search fields tags are used enclose in square brackets, e.g., rubella [ti].
- Search **limits** may exclude in process and publisher supplied citations.

**Limited to:**

All Fields ☐ only items with abstracts

Publication Types Languages Subsets

Ages 2 Years Human or Animal Gender

Publication Date From To

Use the format YYYY/MM/DD; month and day are optional.

- Find citations to articles discussing the surgical or drug treatment of osteosarcoma in children. Limit to studies involving the drug, cisplatin. Also, limit to English language articles.

Choosing appropriate subheadings from the Full display for Osteosarcoma:

Once specifications are checked, click on "Search Box with AND" and click on the **Send to** button.

Check the two appropriate subheadings

☐ **1: Osteosarcoma**
[Links](#)

A sarcoma originating in bone-forming cells, affecting the ends of long bones. It is the most common and most malignant of sarcomas of the bones, and occurs chiefly among 10- to 25-year-old youths. (From Stedman, 25th ed)  
Year introduced: 1989

Subheadings:

☐ analysis ☐ blood ☐ blood supply ☐ cerebrospinal fluid ☐ chemically induced ☐ chemistry ☐ classification  
☐ complications ☐ congenital ☐ diagnosis ☒ drug therapy ☐ economics ☐ embryology ☐ enzymology  
☐ epidemiology ☐ etiology ☐ genetics ☐ history ☐ immunology ☐ metabolism ☐ microbiology  
☐ mortality ☐ nursing ☐ pathology ☐ pharmacology ☐ physiopathology ☐ prevention and control  
☐ psychology ☐ radiography ☐ radionuclide imaging ☐ radiotherapy ☐ rehabilitation ☐ secondary  
☐ secretion ☒ surgery ☐ therapy ☐ transmission ☐ ultrasonography ☐ ultrastructure ☐ urine ☐ veterinary  
☐ virology

☐ Restrict Search to Major Topic headings only  
☐ Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

Searching Cisplatin and sending the term to the search box as you build your strategy:

[Limits](#)
[Preview/Index](#)
[History](#)
[Clipboard](#)
[Details](#)

{"Osteosarcoma/drug therapy"[MeSH]  
OR "Osteosarcoma/surgery"[MeSH]}

Suggestions: [Cisplatin](#); [Cilastatin](#); [Cilastatin](#); [Cistrons](#); [Cistaphos](#); [Cistanche](#); [Cistaceae](#); [Cisapride](#); [Cisordinol](#); [Cistron](#); [more...](#)

Display Summary Show: 20 Send to Search Box with AND

- Build a search strategy using the [Send to Search Box](#) feature.
- Select a database (e.g., PubMed) under the Links menu to retrieve items with that term.

☒ **1: Cisplatin**
[Links](#)

An inorganic and water-soluble platinum complex. After undergoing hydrolysis, it reacts with DNA to produce both intra and interstrand crosslinks. These crosslinks appear to impair replication and transcription of DNA. The cytotoxicity of cisplatin correlates with cellular arrest in the G2 phase of the cell cycle.  
Year introduced: 1984

Once term is selected, click on **Send to** button.

Check the term

## Other Resources

Now, let's take this strategy into PubMed and then continue our search from PubMed using the Limits feature. Click on **Search PubMed**.

("Osteosarcoma/drug therapy"[MAJR]  
OR "Osteosarcoma/surgery"[MAJR]) AND "Cisplatin"[MeSH]

Search PubMedClear

Back in PubMed using the Limits feature:

*Choose  
your limits.*

Limited to:

All Fields

only items with abstracts

Publication TypesEnglishSubsets

All Child: 0-18 yearsHuman or AnimalGender

Entrez Date

Publication DateFromTo

Use the format YYYY/MM/DD; month and day are optional.

### 3. Find references discussing the economics of community-acquired pneumonia.

Selecting the subheading of economics to attach to the MeSH heading, pneumonia, from the Full display in the MeSH Database:

☐ **1: Pneumonia** [Links](#)  
 Inflammation of the lungs.

Subheadings:

☐ blood
 ☐ cerebrospinal fluid
 ☐ chemically induced
 ☐ classification
 ☐ complications
 ☐ congenital
 ☐ diagnosis
 ☐ diet therapy
 ☐ drug therapy
 ☒ economics
 ☐ embryology
 ☐ enzymology
 ☐ epidemiology
 ☐ ethnology
 ☐ etiology
 ☐ genetics
 ☐ history
 ☐ immunology
 ☐ metabolism
 ☐ microbiology
 ☐ mortality
 ☐ nursing
 ☐ parasitology
 ☐ pathology
 ☐ physiology
 ☐ physiopathology
 ☐ prevention and control
 ☐ psychology
 ☐ radiography
 ☐ radionuclide imaging
 ☐ radiotherapy
 ☐ rehabilitation
 ☐ surgery
 ☐ therapeutic use
 ☐ therapy
 ☐ transmission
 ☐ ultrasonography
 ☐ urine
 ☐ veterinary
 ☐ virology

☐ Restrict Search to Major Topic headings only  
☐ Do Not Explode this term (i.e., do not include MeSH terms found below this term in the MeSH tree).

Searching for the next term:

*Read the Scope Note.  
If relevant, click on  
the term to see the  
Full Display for more  
information including  
subheadings.*

[Limits](#) [Preview/Index](#) [History](#) [Clipboard](#) [Details](#)

Suggestions: [Community acquired infection](#); [Infection, community acquired](#); [Community acquired infections](#); [Infections, community acquired](#); [Community action](#); [Community actions](#); [Community, Maternally acquired immunity](#); [Communication disorder, acquired](#); [Communication disorders, acquired](#); [more...](#)

Display  Show:  Send to

Items 1-2 of 2 One page.

- Build a search strategy using the [Send to Search Box](#) feature.
- Select a database (e.g., PubMed) under the Links menu to retrieve items with that term.

☐ **1: Community-Acquired Infections** [Links](#)  
 Any infection acquired in the community, that is, contrasted with those acquired in a health care facility (CROSS INFECTION). An infection would be classified as community-acquired if the patient had not recently been in a health care facility or been in contact with someone who had been recently in a health care facility.  
 Year introduced: 1994

Final strategy ready to send to PubMed:

## Other Resources

Try to find the following references using the following information and PubMed's Single Citation Matcher :

4. *Arthritis Rheum*  
1982  
page 1271-7

Enter information about the article you wish to find.

Journal:

Date:

Volume:  Issue:  First page:

Author's last name and initials (e.g., Smith BJ)

Title words:

☐ 1: [Tan EM, Cohen AS, Fries JF, Masi AT, McShane DJ, Rothfield NF, Schaller JG, Talal N, Winchester RJ.](#)

[Related Articles, OMIM](#)

The 1982 revised criteria for the classification of systemic lupus erythematosus.  
*Arthritis Rheum.* 1982 Nov;25(11):1271-7.  
PMID: 7138600 [PubMed - indexed for MEDLINE]

5. R. G. Johnson  
*Journal of Thoracic and Cardiovascular Surgery*  
Jan 1998  
Page 148

Enter information about the article you wish to find.

Journal:

Date:

Volume:  Issue:  First page:

Author's last name and initials (e.g., Smith BJ)

Title words:

☐ 1: [Cohn WE, Suen HC, Weintraub RM, Johnson RG.](#)

[Related Articles](#)

The "H" graft: an alternative approach for performing minimally invasive direct coronary artery bypass.

*J Thorac Cardiovasc Surg.* 1998 Jan;115(1):148-51.

PMID: 9451058 [PubMed - indexed for MEDLINE]